AMSTRAD ACTION

NOT an official Amstrad publication!

The ultimate CPC peripheral!

BIGGER AND BETTER
the wonderful world of upgrades

Clunk-Click Every Trip

Nigel Mansell's World Championship speeds past the competition

Nigel Mansell

The night of a thousand pokes...

...how to beat over 478 games!

Is your covertape missing? If so, ask your newsagent where it is!

⋀ ALSO ON DISK!

Want a disk version of the covertape? (6128 Plus owners take note) See the tape pages for ordering details.

Line up

Postman Pat, a cat and a hat on page 48.

Act like Arnie! Terminator 2 is on page 56.

Main feature

46 Nigel Mansell's World Championship

Have you got what it takes to be the best? If so, then this is the game for you. It's one of the best we've seen.

Tread in Robin's footsteps! Turn to page 31.

ACTION PACK

A slight change of pace this month, as we settle down to the more relaxed, intellectual feel of a game of snooker and a very serious machine code utility. Why don't you just go and get your slippers?

Action Pack

Steve Davis Snooker

Complete Game
CDS Software

Here at AA Towers, we've had enough of guns for a while. It's time to be nice to animals, bad guys, and aliens. We want to play something a little more passive, something which calls for a quiet kind of skill, for a careful aim and gentle endurance. Something, in fact, like *Steve Davis Snooker*.

Snooker doesn't excite everybody, but we think we'll make lots of converts out of you lot with the help of this game. But before you go and play it, we're going to have to quickly show you how it's done.

Use the keyboard keys Q, A, O, P and ENTER (or a joystick) for moving your target around the table, and press fire. Then use left and right to set the power of the shot, and press fire again. Next, move the arrow around the white ball at the bottom of the screen to select spin. After that,

It's time to put away those guns, space helmets and other worldly toys. Istead, settle down at your monitor with a nice cup of orangina and enjoy a game of snooker.

And you're off! Take your time and look at all the angles.

Spin the ball by using a combination of keys, and go for the red.

press fire, and watch all the balls whizz around!

When you pocket a red (stop, thief!), you can select a colour by pressing the corresponding number key on the keyboard. The numbers are easy – They start at two, and run in order of points (yellow, green, brown, blue, pink, and black). Oh yeah, at the start of the game, you have to position the cue ball somewhere in the 'D' (the semicircle at one end of the table) by using normal directions and fire/enter.

If you are so abysmal at aiming a white ball that you foul, you will be asked 'Play Again?' This is simply if you want the player who committed the foul to play the next shot or not. It's not at all complicated!

As for the more advanced rules of snooker, you could go out and find a book or something,

Snooker – is it a game of carefully-taken angles and razor-sharp wits, or is it just two blokes hitting little balls with big sticks?

Well, Steve Davis thinks it's the former and Mrs Gladys Frunge from Kidderminster said she would stand up, in public, in support of the latter view.

but you probably won't need it. If you don't manage to pick up the general idea of this game then you're obviously a babe in arms and shouldn't be touching anything electrical. It's kinda surprising that we should have to go through the rules, but there may have been some little bit you weren't clear on, so it's better to sort everything out!

CONTROLS
Joystick or the keys Q, A, O, P and ENTER

And when you've perfected the moves, why not start another game?

SNOOKER DOS AND DON'TS

You don't want to offend any snooker players by not adhering to all those special little points that they care so much about. Not only would you seem like an outsider, but it's not polite.
● Unlike real snooker, you are allowed to eat and drink whilst playing *Steve Davis Snooker*.
● No spitting.

● Using the thin end of the stick, hit the white ball with the stick, and hope it hits the red ones.
● If the red balls fall into one of the holes at the side of the table, you have to cheer.
● Follow this move by hitting one of the lovely coloured ones into a hole as well.
● If you manage to hit the white ball into a red one and nothing goes into a hole, it's the other player's turn.
● If you lose the black ball in a hole before one of the reds, or any ball hits the pint mug on the table, you're out.
● Don't eat the blue chalk.
● Don't distract other players by blowing in their ears.
● Don't wear tight, shiny brown trousers.
● Don't even think about cracking one of the thousands of possible smutty jokes to be made about snooker. (And that also includes you, Simon. Ed)

Oooh, you're so close. Just nudge it and you could have your ball!

Type-ins

For all those of you who are too worried about their fingernails to tap in long lists of numbers, here are the pick of the recent crop of fruity AA TypeOins.

Flags
Ross Riley

Wow! It's a flag! And another! There's Germany! America! Fab! Groovesome etc. Sit back and watch this nice little display of the major flags of the world.

Okay, so you're probably wondering what use this program could possibly have. Well, have you ever considered the fact that there are some people out there who get loads of enjoyment out of looking at flags? Well, there are. So spare them a thought!

Look at that! Isn't it lovely? A real work of art, that is!

Height
James Ross

Have you ever noticed just how easy it is to insult short people? (*Watch it, you're on very dodgy ground. Ed*) Some people on the AA team are a little under–tall themselves. (*I'm warning you. Ed*) Here's a nice program with which you can tell stumpy people that they aren't going to get any nearer the clouds. Just enter your height in centimetres, or millimetres if it's easier, your age, and this program tells you what height you'll eventually reach.
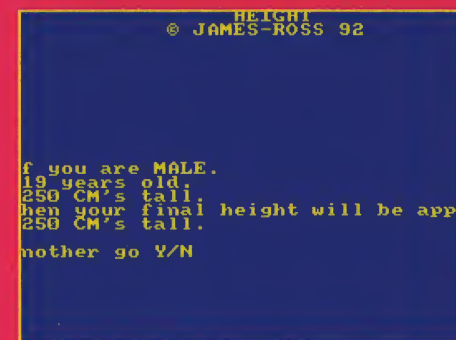
Did you know that most males groew up to be taller than their mothers?

Number Scoffer
Dean Jackson

It's time to blip round a screen scoffing numbers, and avoiding the nasties! What fun! It's also very, shall we say, uncomplicated. Use the joystick. (*Is that all there is to say? Ed*) Erm, yes. It's easy and it's fun. Basically. (*There must be more than that? Let me have a go... I see what you mean. It certainly is good fun, and it's ever so easy to pick up. But what you didn't mention is the fact that it's a bit on the addictive side. And that's quite an important point. Ed*)

I'm a little number, short and stout, I haven't done any harm. Don't eat me!

Swap
Paul Turner

Have you ever played one of those puzzle games where you have to slide all the bits around? (*I love those, they're my fave. Is this game like that? Can I have a go? Ed*) Yes, this game's just like one of those and it's fab. The point of the game is to finish with an exact mirror image of the starting position of the grid. Simply move the bits using the cursor keys, and press copy when you want to swap a piece. Actually, it's a similar concept to the puzzley bits in *Terminator 2*. Okay, you can have a go now, Ed.

Gosh, it even tells you what to do. How awfully considerate!

Run this month's fabulous type-ins by typing RUN" and pressing enter or return.

Just pop the tape into your machine, making sure it's rewound to the start of Side 1, and then press CTRL + ENTER (or type RUN"") then press any key and the tape will start loading.

Within a few moments you get a menu screen. Choose the program you want using the Spacebar, then hit the Return key.
● Note that none of the programs need be loaded directly from the main menu. They can all be run from BASIC. The menu lists them, but you must quit back to BASIC to run them. (Use the RUN"(filename)" command.)
● If you have a disk drive either built into your machine or plugged in, you will first have to type itape to switch the computer to tape loading. You get the I character by pressing SHIFT+@. Then just proceed as normal.

Duff tape?

We go to great lengths to make sure that our covertapes work properly. However, if you still have difficulty, try this:
● Loading at several different volume levels (if you're using an external tape recorder) ● Cleaning the tape heads. This can be done with any commercially available cleaning kit ● Adjusting the cassette recorder's head alignment. The alignment screw is located just to the left of the tape head, and is usually accessible through a small hole. Turn it a fraction at a time with a jeweller's screwdriver. When the crispest sound is heard, the alignment is spot on. ● Tapping the cassette gently against a table edge – the spools may be sticking or jammed.

If you still can't get the tape to load then send the tape, along with a brief description of the problem and a sae to:

**AA90 Covertape Returns,
Ablex Audio Video Ltd,
Harcourt, Halesford 14,
Telford, Shropshire
TF7 4QD**

Want a disk version?

The covertape contains its own tape-disk copying program. To transfer the programs to tape, simply follow the instructions on the tape.
● 464 owners with external 3-inch drives will have no problems, but 6128 owners will need a cassette player with a REM socket. Stopping and starting the tape manually is difficult.
● 6128 Plus owners who've had their machines modified to load from tape can transfer the programs to disk, but must rewind to the start of the tape again before the transfer starts.

You can also order a disk version of the covertape from our duplicators, Ablex. Snip off the coupon on the corner of this page and send it with a cheque/PO for £2.00 to:

**AA90 Disk Offer, Ablex
Audio Video, Harcourt,
Halesford 14, Telford,
Shropshire
TF7 4QD**

Disk 90 Token

LARA

If somebody walked up to you in the street, and whispered in your ear, "Ere, squire, fancy a top-quality machine code utility for only £5?" you'd probably be quite tempted. But buy it, and you'd have wasted your money, because this month's covertape contains just such a utility and it's completely free.

We couldn't put the instructions for LARA on the tape, because they're 45K long. There also written in German. This is a pity, because it can be tricky to use. However, this short tutorial should get you acquainted with what is possibly the best Z80 monitor available for the CPC.

LARA positions itself in extra memory if you have a 128K computer, so as not to corrupt the main program. You can load LARA, exit (press E followed by ENTER), load the program you want to have a look at, and then re-enter LARA (with SHIFT and function key 9). 64K users are restricted to the memory below &4000, which is okay for programs of less than 16K.

LARA commands mostly consist of a single letter, sometimes followed by one or more parameters. The first command you should know is H (or ?) which brings up a help-screen of all the available commands. When it pauses, press any key to progress to the second screen.

Let's have a look at a few of these commands. To dump memory to the screen, type D followed immediately by the address from where you want to start (for example, DBB00 to start from &BB00). After a while, the memory dump will stop: just press D and ENTER to carry on from where you left off. You can also disassemble code: instead of typing D, use L instead.

This is all well and good, but it's possible that

LARA is a toolbox utility for machine coders and it's a teensy bit on the clever side. No hang on, it's more than that - it is in fact remarkably clever!

you don't have anything in memory to look at right now. No problem: load in a file using the R command. If you want to load it to a specific address, add a comma followed by the address (in hex) at the end of this. CP/M .COM files can be read by using the CR command.

You can also use LARA to look at ROMs. To do this, type K followed by the ROM number (for example, K07 will select the disk ROM), and then disassemble or dump as usual – remember that ROMs sit between &C000 and &FFFF. KFF returns to RAM.

To alter the contents of memory, use the S command followed by an address (S4000 alters &4000 onwards). The address will be shown, followed by its present contents, and a cursor for you to type in a new value – or simply press ENTER to move to the next one. ESC quits this mode. To make it easy to enter text into memory, the P command is available, which is followed by the relevant address and text (e.g. P170,Another great program with AA!)

Perhaps you need to search for some bytes. LARA's Q command comes in here: for example, to search between &4000 and &7FFF for the sequence &CD,&18,&BB, type Q4000,7FFF,CD,18,BB . You can also look for

strings: if you wanted to search the whole of memory for the string "hazelnuts", you would type QT0000,FFFF,hazelnuts – Easy!

At some time you'll probably want to execute a machine code routine in memory: to do this, type G followed by the address. Two break-points (i.e. places where the computer pauses and reports what's going on) can be set, the address of which should be added to the G command with a preceding comma (for example, G3000,3012 would execute code from &3000, and stop when &3012 is reached).

If you're not exactly sure what effect the routine will have on memory, 128K owners can use the commands YG and YP: YP puts the contents of memory into your extra memory (as a backup), and YG gets it back again. 64K owners, obviously, can't use this facility. You can move small areas of memory to a safe place somewhere else using the M command (M2800,29FF,8000 copies the bytes between &2800 and &29FF to &8000).

We could go on for hours, but now that you know the basics, you can just as easily find out by experimentation. (Besides, there's no space left.) The program is great for debugging code and examining other people's: 128K owners should even be able to use it in conjunction with the Multiface's "jump" function to hack into games. Now, no program is safe (evil cackle)...

```
LARA by Jürgen Weber
- ?
B<base>                   SCREENBASE
CR<file>,<adr>            READ COMFILE
CW<file>,<start>,<len>    WRITE COMFILE
C<drive>                  CAT
D<start>(,end>            DUMP MEMORY
E                         END LARA
F<start,end,byte>         FILL
G<start>(,brk1)(,brk2)    GO CODE
H  or  ?                  HELP
H:int1,int2              COMPUTE
H.byte                   CHANGE TO DEZ
H:dez                    CHANGE TO HEX
I                        INIT SCREEN
K<confbyte>              MEMORY KONFIGURATION
L<start>(,end>          DISASSEMBLE
```

The question mark at the command line gives you a list of all the commands available.

And what a truly huge amount of commands there are. This is just the first section of the list.

Coming Soon!

Don't forget that next month AA will undergo a radical change. Not, we hasten to add, in the content of the magazine, but the covertape will be one of the best we've evr given you. Amstrad Action, in conjunction with Tasman Software, brings you the truly excellent and renowned word processing package Tasword 464.

As usual, the tape will also contain a superior complete game. To fit all this on to the tape, we've had to raise the cover price slightly - the new AA will cost £2.95. But you are getting a full word processor (that will

work on disk machines as well) for a mere 45p!

All this, plus the usual blend of news, reviews, serious software, programming, and AA fun! Please turn to page 21 for an explanation from Amstrad Action's publisher.

?

Amscene

Amstrad news, views and goodies!

This month we've found loads of bargains for you and a fair bit of news. If you've got any info that you think should be passed on to other Amstrad owners, then write to Amscene, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

Fly Fishing...
We don't quite know whether anyone's noticed this before, or whether it was some kind of naff joke (and we'd know all about them) on the part of the author, but if you look at last month's review of *Vigilante*, you can't but help notice that the author of the game is one Mr J R Hartley.

Cheap ROMs
Too cheap to buy a full ROM box? Dartsma PD is knocking out Arnor's AD1 boxes (only one socket folks) with Maxam or maybe Protext stuffed in. They cost around £10, but stocks are limited (he's go about twenty left). As usual, you can find Dartsma on 081 317 1170.

WAVE Update
Long standing hardware suppliers WAVE have announced some new products soon coming to the CPC. Amongst these will be a range of leads to connect your old CPC monitors to completely different computers – solving a lot of reader's queries! They can supply leads to connect both old monitors (CTM 640/644) and new monitors (CM14) to Amigas (£14.99), STs (£15.99), MegaDrives (£12.99),and Spectrum +2s and +3s (£12.99). Unfortunately, the old monitors don't have speakers, so you'll need an extra pair, or headphones.

On top of this, they're reproducing the MP3, which allows you to use your old monitor as a colour TV (if you've got a colour monitor) for £34.99, plus £5.88 handling fee.

You can contact WAVE on 0229 87000.

HackIt's Back!
Just when you thought it was safe to turn your CPC back on, Siren Software release their new HackIt black box (well it's white, actually). The new model is said to be even better as it's stuffed with an assembler as well as all the usual stuff. We'll have more for you at a later date.

CampurSoft Goes Ape!
Campursoft' have got wads of new stuff coming out, including a scanner, a genlock (limited version), a memory expansion, and a stunning hard disk drive (possibly with an autoboot feature) with software written by our very own ChaRleyTroniC!

The Aussie's Need Help!
No, that's not cultural prejudice, it's a fact. They've got no CPC support down there! A certain Peter Campbell is a tad concerned at this, and has supplied two contacts for them.

The first is Q3Soft, based in Tasmania on 002 535318, and the second is the PCW Australia User Group who support CPCs as well, on 027 571105. Give them a call today!

Dartsma Moves House
Dartsma PD has now changed address, and can now be found residing at 5c Robert Street, Plumstead, London, SE18 7NE.

That's Tanya on the left and John Barnes is the one with the silly grin. No, hang on...

A Final Photocall
I know our *"Get-A-Photo-Of-Yourself-With-A-Star-And-A-Copy-Of-Amstrad-Action"* competition finished a while ago now, but we just had to print this one of Tanya Winston and her brother, Ben, next to Liverpool's John Barnes. And was she thrilled? "Not really, I actually support Arsenal."

Creative Dealings
Creative are offering the 464 Plus with a mono monitor for just £115. They've also got a few modulators for the knockdown price of £19. Hurry while stocks last! Call 0353 663030 now!

Computer Shopping Spectacular
If you're anywhere in the Telford area on March the sixth and seventh, then pop into the Telford Exhibition Centre. Why? Well, it's hosting a massive computer fair and we've heard that there are going to be lots of bargains, competitions and a local radio roadshow. Coo!

The Mammoth AA Compo Results Bit
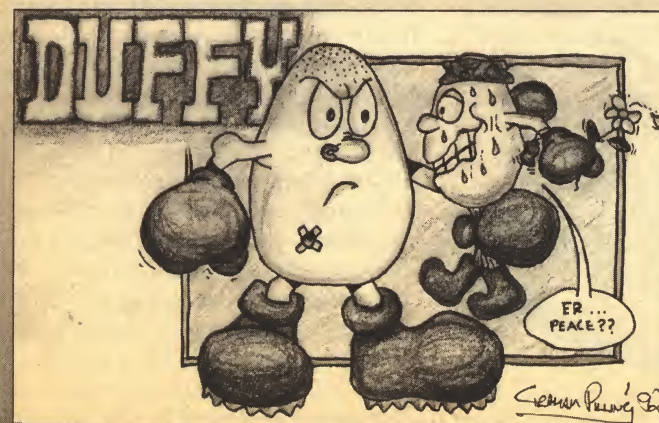
The scenario: Wading into the office through thousands of Dizzy pictures to find the AA editor curled up in the foetal position under a desk. "I've done it! I've finished judging the Dizzy competition!" Oh dear. Seems the strain was too much for Rod. That's the real reason he left, you see. He simply couldn't handle all the hideous egg gags.

Whilst being strapped up and carried off, he gave the name of the competition winner in a demented scream. **"Graham Pilling** of Huddersfield for his Duffy!" Now... Because we're all sadists here at AA, we're going to torment a few of those who didn't win, but came damned close. They're **Aidan McKenna**, **Malcolm Cleland** and **Tom Ash**, but they don't get a single egg gimick!

Rod, however, totally neglected to judge the Alternative compo that night, so we did it for him. The winner here is **David Southgate** of Staffordshire, so he can expect a bag of games pretty soon!

BIGGER AND BETTER

THE WONDERFUL WORLD OF UPGRADES

Of all the great add-ons for the 464 Plus the most popular are the 64K RAM pack and the disk drive. They're also the most expensive... or are they? In the first part of a new series, PHIL CRAVEN tells you how to cut the cost of add-ons.

A RAM pack costs between forty and fifty pounds, and a disk drive about £160. There's no doubting their usefulness but there's no doubting their cost either.

So what if I were to tell you that you could have the extra 64K for only a tenner? You like that? And how about knocking, say, fifty to sixty quid off the cost of a drive? You like that too? Aaw, shucks. Sad to say, it can't be done. I'm sorry to be the one to tell you but, although we can get you the drive for a tweak over £100, the best we can manage the extra 64K for is £10.72, including VAT and postage, which is a massive 72p up on what I led you to think. You still want it? Oh, all right. If you've got money to burn, read on.

Until you actually buy one, you wouldn't know that the existing 64K RAM pack was designed to perch neatly on the back of the older 464 and, although it works fine on the 464 Plus, it doesn't exactly perch neatly anywhere. In fact it fits rather like a square peg in a round hole, and I don't just mean that they have different connectors. The RAM pack is too tall for the 464 Plus. The answer to this is to either raise the computer on a board or use an extension cable and let the RAM pack sort of flop all over the desk. The best solution is not to use the RAM pack at all but to put the extra 64K inside the computer where it couldn't be neater. Using a soldering iron, a solder sucker and this article you can upgrade your 464 Plus to 128K, the same as the 6128 Plus, and, because the parts cost a mere £10.72, you can save yourself at least £30 in the process!

It isn't widely known, but the main circuit boards of the 464 Plus and the 6128 Plus are identical, having identical circuit tracks and identical holes for the various components. The difference between the two models is that the 6128 Plus has the disk interface and extra 64K components fitted where the 464 Plus has holes and the 464 Plus has tape components fitted where the 6128 Plus has holes. So it doesn't take an Einstein to wonder if putting the extra 64k components into the correct holes in the 464 Plus' circuit board would produce a 128K computer – and it does! The same applies with the disk interface components (464 Plus) and the tape interface components (6128 Plus). But first – the extra 64K.

Assembling the upgrade kit is simple. There are ten components to buy and fit (see the parts list) but, before you rush to get them, take a little time to examine the task ahead and make sure that you are confident enough to perform it or that you know a man who is.

With all power turned off, remove all peripherals including the cartridge and tape from the computer and disconnect it from the monitor. Turn the computer upside down and remove all the screws from the underside. While you've got the underside up, notice the three catches – one in the centre of the front and one on each side. Turn the keyboard the right way up again and, with your fingers, undo the three catches. The front one pulls towards you and the side ones pull outwards. That done, press EJECT on the tape player to raise its lid and lift the top of the casing away from the keyboard. It will fold back but it is still connected to the circuit board by several wires so don't yank at it.

Whilst you're doing the job, the circuit board will be completely removed from the computer but, at this point, leave it where it is and leave
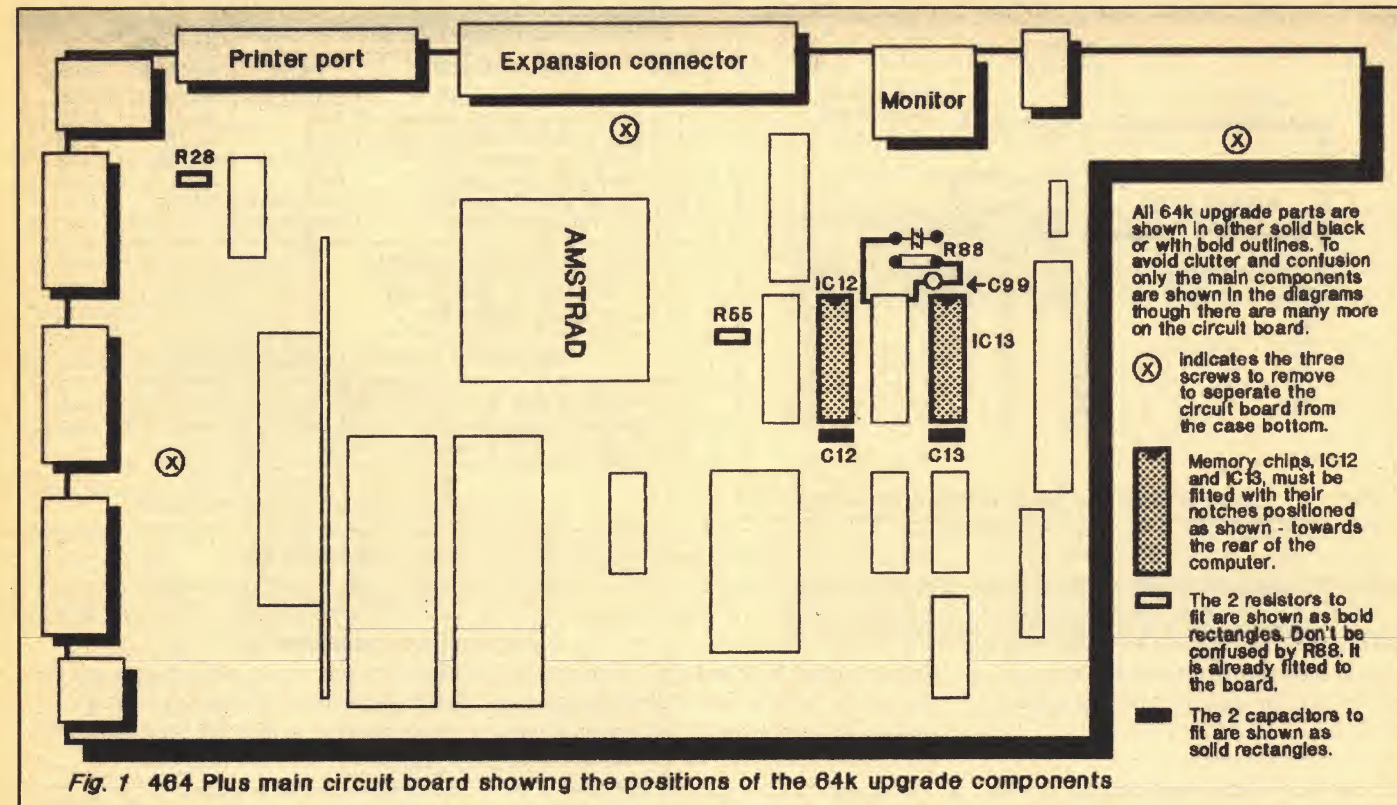
the top connected to it. Don't touch anything on the circuit board but compare it with Fig.1 and Fig.2 and take a little time to consider how the 64K upgrade will be done. Fig.1 shows where the components are fitted to the circuit board, Fig.2 shows the detail of fitting the electrolytic capacitor and wire link and the parts list indicates each component that you will have to fit. Use the diagrams to identify the location where each component fits. You will notice that the holes for the components have been filled with solder during the manufacturing process and it needs to be removed before fitting the components. For that, you'll need a solder sucker. Tandy sell a cheap bulb-type one that looks like a bit like a small vinegar bottle and Maplin sell a better one called a Desolder Tool – its order code is FR26D and it costs £3.95.

If it looks easy enough to you then go ahead and buy the parts. If not, then close up the computer in the reverse order to opening it and consider the service offered by Avatar.

DOING IT

Open the computer as described earlier. Now, before going any further, hold your cold water tap for a second to discharge any static electricity from your body. That done that, touch the electrolytic capacitor, C99, and chips as little as possible. Zapping a chip with the body's static electricity is rare these days but it's always better to err on the side of caution.

Remove the case top from the circuit board by disconnecting the wires that join them. Notice that the the two pairs of wires have colour-coded sockets – the blue socket goes on to the blue plug and the black one on to the black plug. Those plugs and sockets clip together and a small screwdriver is needed to prise their vertical tongues slightly open. Remove the tape deck connector by pulling it upwards. Remove the

keyboard by pulling the two film connectors from their sockets and take out the three screws that hold the circuit board to the case bottom (see Fig.1). The circuit board can now be lifted out but handle it by its edges. The component's pins on the underside of the board are sharp and will scratch a polished surface. You have been warned, you've no excuse.

Suck the solder from the holes that are needed for the ten components. You'll probably find it easier to suck from the underside of the board. Don't worry about the weight of the board bending the copper leaf springs. They will bend back again later. With the solder sucker poised very near a hole melt the solder inside the hole with your soldering iron, quickly move the sucker nozzle onto the hole and suck. Some of the holes will only be partly filled and sucking is more successful when a hole is full so, if at first you don't succeed, fill it up with solder and try again. It's easy when you get the hang of it. When all the holes have been cleared look closely at them, preferably with a magnifying glass, and get rid of any solder bits. Now you're almost finished!

There is no particular order in which the components should be fitted but, to help you get used to it, you might like to do resistors R28 and R55 first. The only fiddly bits are the wire link and the electrolytic capacitor, C99, which are best fitted before the IC sockets. Otherwise the sockets can get in the way.

FITTING EACH COMPONENT

Resistors R28 and R55 To make buying the parts easier, I have specified them all from a single source, Maplin. But Maplin don't stock the precise resistors that Amstrad used in the 6128 Plus machines (1/6th watt, 4.1mm long). To avoid any possibility of overheating the resistors, the ones specified are 6.8mm long and are bigger than those already in the circuit board.

This is not a problem. Bend the wires to fit the holes and solder into place.

They are coded by coloured bands as shown in the parts list followed by a brown and a red band. Be sure to put the correct resistor into the correct place. It doesn't matter which way round they are fitted. Push the wires of one resistor through its holes so that the resistor's body is quite close to the circuit board and bend the wires outwards on the underside of the board. That prevents the resistor from slipping out when you turn the board over to solder it into place. Turn the board over and solder the wires into place. Trim off the excess wire. Now do the same with the other resistor.

Capacitors C12 and C13 These are brown discs. Like the resistors, they can be fitted any way round – either wire in either hole.

Electrolytic capacitor C99 There are no holes for this one and when you've fitted it, you'll think it looks a bit odd but, surprisingly, this is exactly how it is done in the 6128 Plus.

C99 is a small metal can with two wires at one end and a dark stripe down one side, next to one of the wires. The stripe indicates that that wire is negative. It is important to connect this capacitor the correct way round. Fig.2 shows it as a circle with a positive sign (+) at one side and a negative sign (-) at the other. The negative sign indicates the dark stripe side. Melt a small blob of solder onto pin 18 of the existing memory chip, IC11, and solder C99's positive wire (not the dark stripe side) to that pin. Solder the negative wire to the side of the existing resistor, R88, as shown in Fig.2. You'll need to bend the wires to fit and the result will leave the capacitor sticking up but it can be bent over a bit before you close up the computer.

When soldering to an IC pin, as in this case,

Fig. 1 464 Plus main circuit board showing the positions of the 64k upgrade components

All 64k upgrade parts are shown in either solid black or with bold outlines. To avoid clutter and confusion only the main components are shown in the diagrams though there are many more on the circuit board.

⊗ indicates the three screws to remove to separate the circuit board from the case bottom.

Memory chips, IC12 and IC13, must be fitted with their notches positioned as shown - towards the rear of the computer.

The 2 resistors to fit are shown as bold rectangles. Don't be confused with R88. It is already fitted to the circuit board.

The 2 capacitors to fit are shown as solid rectangles.

Fig. 2   Detail of C99 and the wire link connections

	PARTS LIST			MAPLINS	
QTY	DESCRIPTION	PART	PART No.	cost each
2	41464 or equivalent	IC12, IC13	UH93B	4.45
1	10K (brown black orange)	R28	M10K	0.03
1	33R (orange orange black)	R55	M33R	0.03
2	0.1uF 12v ceramic	C12, C13	YR75S	0.12
1	47uF 16v electrolytic	C99	YY37S	0.12
2	2 x 18 pin IC sockets	IC12, IC13	HQ76H	0.10
1	short piece of wire	wire link	—	—

MAPLIN ELECTRONICS,
P.O. Box 3, Rayleigh.
Essex, SS6 2BR.

total parts 9.52
handling 1.20
TOTAL £10.72

Telephone orders: 0702 554161

Maplins make one £1.20 handling charge so, if you also need the solder sucker (desolder tool), add it to your order but don't add any extra handling charge.

you have about six seconds with the iron on the pin before the heat starts to become dangerous for the chip. Six seconds is a very long time in soldering terms but, even so, it is best to do it as stated by melting a blob of solder onto the pin first. That way the capacitor's wire will solder to the IC's pin in a fraction of a second.

Wire link Again, this is exactly how it is done in the 6128 Plus. Any short piece of wire will do. Strip about 1/8" of insulation from each end of the wire and tin the exposed metal conductors. Tinning is covering the conductor with solder and it is done by holding the soldering iron onto the conductor and allowing solder to melt over it.

Melt a blob of solder onto pin 1 of the existing memory chip, IC11, and solder one end of the wire onto it. Solder the other end of the wire to the hole as shown in Fig. 2. It isn't necessary to clear that hole of solder as melting it will allow the wire to push through.

Sockets for IC12 and IC13 These aren't really necessary but many people are afraid to solder the pins of chips. The sockets avoid that and they are cheap enough.

Look at the existing IC10 and IC11 and notice that they each have a notch at the end nearest to the back of the computer. The notches are to indicate which end is which. Most sockets have notches too. If yours do, then place them into the circuit board with their notches towards the back – exactly like ICs 10 and 11. Do the sockets one at a time and solder every pin into place.

Memory chips, IC12 and IC13 These simply plug into the sockets. They are both the same so each can go in either socket but they must have their notches towards the back of the computer.

Most new chips are supplied with 'splayed' pins which must be bent inwards. It's quick and easy to hold a chip at each end with one row of pins on a hard surface and push down so that the whole row of pins bends inwards. You want each row to be more or less at right angles to the chip's body. Push each chip into one of the sockets making sure that all the pins go in and none become bent.

CLOSING UP
The upgrade is now finished and the extra memory can be used but, before closing up the computer, check that you have C99 the right way round and that the memory chips have their notches at the back. Now you can close it up, remembering to screw the circuit board to the case bottom and reconnect the keyboard's two film connectors, the tape connector and the blue and black wire pairs. The copper leaf springs should rest on the underside of the keyboard. If they have been bent down and can't touch the keyboard, bend them up again so that they do.

FINALLY
DIY projects that tell you how to alter the insides of your computer are unusual and we don't want to leave you in the lurch so we have taken the unusual step of providing technical help for this project on a special phoneline – the number is 0274 602180. It must be said. If these instructions are followed accurately, and the parts are good, the upgrade will work. But we cannot control what a person does inside his/her computer and neither Amstrad Action nor Future Publishing, nor the author of this article can accept any responsibility or liability for any damage to parts or equipment that might occur by doing this project. I can say is that many others have already done the project as sold in kit form by Avatar.

Hopefully, you've read this far before closing your computer so wet your appetite a bit by spotting another group of unused holes on the circuit board, including a set behind the tape deck that is obviously for a connector. A disk drive connector? You'll just have to wait and see, won't you? Seeya next month.

USING THE EXTRA 64K
With the computer put back together and connected to the monitor you can turn it on et voila! Nothing! Nowt! Zilch! There'll be nothing different on your screen and nothing to indicate that the extra memory is there at all. It's a common mistake to think that some software is needed for the extra 64K to be used. The DKTronics RAM pack is supplied with software which people imagine is necessary, but it isn't. What it does is test the extra memory and provide some RSX's so that it can be used from within Basic programs. But the main use of the extra 64K is with commercial programs that are written to use it and those programs will find it straight away. You don't have to do anything. You don't have to tell the computer that it's there and you don't have to tell a program that it's there. Programs that want it will find it. CPM+ is one such program.

Using the extra memory in your own BASIC and machine code programs needs some knowledge of the CPC's memory organisation facilities which, unfortunately, is beyond the scope of this article.

And for 6128 PLUS owners..."

Have you always wanted the facility to use tape software and copy tape to disk but have been frustrated by the lack of a tape input on your computer? Have you considered the available tape upgrades but are concerned when press statements say, 'but it doesn't operate the remote'? To be fair though, there is one available upgrade that does operate the remote. Nevertheless, coming soon to an Amstrad Action near you is the DIY and ultra-low cost tape upgrade that does operate the remote. Stay tuned.

POKING FUN

AA presents the longest list of Multiface POKEs ever. Phil Howard is the man responsible for giving you everlasting life.

The Multiface way

The (t)s and (d)s before the address indicate whether the POKE was written for a tape or disk game (they might work on both, It's worth a try). Just in case you don't already know how to put in these BLACK BOX POKES, here are the steps to success.

a) Load the game as normal.
b) Press the RED button on the MULTIFACE.
c) Press "T" for tool.
d) Press "*" to make sure you select the game code.
e) Press "H" for HEXADECIMAL input.
f) Press "SPACE" for input.
g) Type in the ADDRESS (4 characters ie. 3A7C).
h) Type in the POKE (2 characters ie. A7).
i) Press "RETURN"
j) If there is more than one poke (indicated by a ")") goto (f)
k) Press "ESC" back to the menu.
l) Press "R" return to the game.

Game	Code	Description
1942	(t) 2974 C3	Manual rapid fire
1942	(t) 2982 00	Auto rapid fire
1942	(t) 24C0 C9)	Inf lives
1942	(t) 2400 C0)	
1943	(t) 7A21 A7	Inf energy
3D Starfighter	(t) 7F3A 00)	Invulnerability
3D Starfighter	(t) 7F15 00)	
720 Degrees	(t) 8027 00	Inf lives
720 Degrees	(t) 9528 00	Inf credits
720 Degrees	(t) 80B8 00	Inf tickets
ATF	2C5A FF	255 Lives
ATF	(d) BE4C FE	Lots of fuel
ATF	(d) BE61 FF	Lots of cannon
ATF	(d) BE62 FF	Asream missiles
ATF	(d) BE63 FF	Maverick missiles
ATV Simulator	(t) 4C1E 00	Stops the clock
Academy	8CF3 00	Inf missiles
Academy	8D17 00	Inf ammo
Academy	8DD6 00	Inf delay bombs
Academy	8CC8 00	Inf flares
Academy	A049 00)	Inf fuel
Academy	8EEC 00)	
Academy	83C2 00	Inf shield
Addams Family demo	(t) 1200 00	Inf lives
Advanced Pinball	(t) 0415 00	Inf balls
After the War	(t) 804E 00	Inf lives (part 1)
After the War	(t) 8049 00	Inf lives (part 2)
Afterburner	(t) 1D58 00	Inf missiles
Afterburner	(t) 20A7 3A	Inf lives
Agent X 2	(t) 5CDA A7	Inf energy
Airborne Ranger	(t) 945A 5C	inf aid – press DE
Airborne Ranger	(t) 9539 3B	Inf aid – press DE
Airwolf 2	(t) 822B	No lives
Airwolf	(t) 786F 00	Inf lives
Alien 8	(t) 83C2 00	Inf energy
Alien 8	(t) 2EFE 00	Inf time
Altered Beast	(t) 09B0 00	Inf credits
Altered Beast	(t) 09B9 00	Inf credits
Anarchy	(t) 48E1 C9	Inf lives
Android 2	(t) 2822 00	Inf shields
Antiriad	(t) 5749 00	Gives boots
Antiriad	(t) 64F4 00	Gives guns
Antiriad	(t) 5BBE B7	Invulnerability
Antiriad	(t) 6F58 B7	Inf energy
Antiriad	(t) 6F3A 00	Radiation (1)
Antiriad	(t) 6F3B 00	Radiation (2)
Arcade Flight Sim	(t) 9D12 00	Inf lives (1)
Arcade Flight Sim	(t) 9CD6 00	Inf lives (2)
Arctic Fox	(t) A300 00	Inf shields
Arkanoid 2	(t) 3318 A7	Inf lives 1st load
Arkanoid 2	(t) 419C A7	Inf lives 2nd load
Arkanoid 2	(t) 3318 A7	Inf lives 3rd load
Arkanoid 2	(t) 4207A7	Inf lives 4th load
Arkanoid	(t) 20FE 00	Inf lives
Arkanoid	(t) 20F3 00	Inf lives
Arkanoid 2 (coin op)	(t) 3318 A7	Inf lives (load 1)
Arkanoid 2 (coin op)	(t) 419C A7	Inf lives (load 2)
Arkanoid 2 (coin op)	(t) 3318 A7	Inf lives (load 3)
Arkanoid 2 (coin op)	(t) 4207 A7	Inf lives (load 4)
Army Moves	(t) 0752 00)	Inf lives (1)
Army Moves	(t) 0480 00)	Inf lives (2)
Artic Fox	8049 00	Infinite shields
Artura	(t) 218B 00	Inf energy
Artura	(t) 218B 00	Inf energy
Astro Marine Corps	(t) 4234 FF	Grenades (part 2)
Astro Marine Corps	(t) 4FD5 FF	Grenades (part 1)
Atom Ant	(t) 18DC 00)	Inf lives
Atom Ant	(t) 191A 00)	
Atom Ant	(t) 0607	No lives
Atom Ant	(t) 1490	No time
Atom Ant	(t) 1413	No bombs
Atom Ant	(t) 18B2 C9	No collision
Auf Wiedershen Monty	ADB3 00	Inf lives
BMX Freestyle	(t) 1456 00)	Quality
BMX Freestyle	(t) 1480 00)	on
BMX Freestyle	(t) 1481 00)	each
BMX Freestyle	(t) 1482 00)	event
BMX Freestyle	(t) 148F 00)	
Back to the Future 2	6954 00	Inf time
Back to the Future 2	7A4C 00	Inf lives
Bad Cat (Go Crazy)	(t) 221D 0A)	Lots of time
Bad Cat (Go Crazy)	(t) 221E 09)	in venue 1
Bad Cat (Go Crazy)	(t) 21FF FF	Time in interlude
Bad Cat (Go Crazy)	(t) 21F0 0A)	Lots of time
Bad Cat (Go Crazy)	(t) 21FE 09)	in venue 2
Bad Cat (Go Crazy)	(t) 22a3 0A)	Lots of time
Bad Cat (Go Crazy)	(t) 2224 09)	in venue 3
Bad Cat (Go Crazy)	(t) 221A 0A)	Lots of time
Bad Cat (Go Crazy)	(t) 221B 09)	in venue 4
Ball Crazy	(t) 1C6F A7	Inf lives
Ball Crazy	(t) 1C6F A7	Inf lives
Barbarian 2	(t) 3D12 06)	Mega power
Barbarian 2	(t) 3D13 10)	
Barbarian 2	(t) 3D96 3A)	
Barbarian 2	(t) 3E12 3A	Inf energy
Barbarian 2	(t) 432F A7	Inf lives
Barbarian 2	(t) 432F A7	Inf lives
Bart Simpson	(t) 15AC FF	Inf lives
Bart Simpson	(t) 3B0E 00	Position
Basil Mouse Detect	(t) 90D0 C9	Inf time
Basil Mouse Detect	(t) 8E46 C9	Inf energy
Batman the Movie	1D62 FF	Removes grenades
Batman the Movie	(t) EE06 C9	Inf energy
Batman the Movie	(t) 6743 00	Inf lives
Batman the Movie	(t) 76EE 00	Inf lives
Batman 3D	(t) 1C90 00	Inf lives
Batman the Movie	(t) EE06 C9	Inf energy
Batman the Movie	(t) 6743 00	Inf lives
Batman the Movie	(t) 76EE 00	Inf lives
Battle of Britain	(t) 4030 00	Inf fuel
Batty	432B FF	255 lives
Batty	(t) 4515 00	Inf lives 1 play
Batty	(t) 4523 00	Inf lives 2 play
Bedlam (Go Crazy)	(t) F1BE 09	9 Lives
Beyond Ice Palace	(t) 0D38 A7)	Inf spirits
Beyond Ice Palace	(t) 0ED3 C9)	and
Beyond Ice Palace	(t) CF32 00)	Invulnerability
Beyond Ice Palace	(t) E77F 00)	use all 5
Beyond Ice Palace	(t) FF34 C9)	pokes
Bigfoot	(t) 1016 A7	Inf lives
Bigfoot	(t) 0601 00	Lots of lives
Billy the Kid	(t) 81C9 00	Inf ammo
Billy the Kid	(t) 92CA 10	One shot
Bionic Commandos	(t) 0EFB FF	Lots of lives
Black Tiger	(t) 5612 A7]	Inf lives
Blackbeard	38DA A3	Inf lives
Blackbeard	4C3E 00	Inf bullets
Blade Warrior	(t) 031B 00	Inf lives
Blade Warrior	(t) 625C 18]	Inf time
Blade Warrior	(t) 77A1 C9)	
Blasteroids	2155 00	Inf lives
Bloodwych	(t) 0523 A7]	Inf energy
Bloodwych	(t) 9B73 A7]	Inf aid
Bobby Bearing	(t) 8243 00	Disables baddies
Bombfusion	(t) 493A 00	Slows Timer
Bombfusion	4A72 00	Inf lives
Bombfusion	4935 00	Inf time
Bombfusion	(t) 4A71 00	Inf lives
Bombjack	(t) 0090 00	Loads of lives
Bombjack II	02EB 00	Loads of lives
Bombjack II	0649 00	Stops all enemies
Booty	(t) 54F4 00	Inf lives
Boulderdash IV	(t) 05E9 FF	Extra lives
Boulderdash IV	(t) 6C3C 00	Inf time
Boy Racer	83E4 A7	Indestructable (p1)
Boy Racer	83CA A7	Indestructable (p2)
Brainache	7912 00	Inf lives
Breakthru	BE38 00	255 lives
Brian Bloodaxe	(t) 684B C3	Inf lives
Brian Jacks s/star	(t) 1980 A7	Full strength part 1
Brian Jacks s/star	(t) 1999 A7	Full strength part 2
Bronx Street Cop	(t) 0579 32	Extra time
Bronx Street Cop	(t) 4FFA A7	Inf bullets
Bubble Bobble	(t) 6D26 A7	Inf lives part 1
Bubble Bobble	(t) 6D87 A7	
Bubble Bobble	(t) 6D24 A7	Inf lives part 1
Bubble Bobble	(t) 6D85 A7	
Bubble Bobble	(t) 6C0F A7	Inf lives part 2
Bubble Bobble	(t) 6C70 A7	
Bubble Dizzy	(t) 6E72 00	Inf lives
Bubble Ghost	(t) 82A4 00	Inf bubbles
Bubbler	A74E B7	Inf lives
Buggy Boy	1E7F C9	Inf time
Butcher Hill	(t) 115D A7]	Inf lives
Butcher Hill	(t) 11FD A7]	
Cabal	(t) 1972 00	Inf lives
Cabal	(d) 0B1A 00)	Inf lives
Cabal	(d) 1972 00	Can't die
Camelot Warrior	(-) D89E 00	Inf lives
Captain Planet	7CD6 00	Inf lives
Captain Dynamo	(t) 460E 50	80 lives
Captain Blood	(-) 43A3 00)	Reset timer
Captain Blood	(-) 43A4 00)	
Captain Blood	(-) 43A5 00)	
Captain Blood	(t) 6829 00)	Inf energy
Castle Master	(-) 7305 00)	
Castle Master	(t) 9C83 00	Inf lives
Castle Master	(t) 8D57 A7]	Inf lives
Cauldron	(t) 8D58 A7)	
Cauldron	(t) 8D59 A7)	
Cauldron	(t) 1C90 00	Inf lives
Cauldron 2	(t) 1FD6 00	Inf lives
Cavemania	(t) 2525 FF	255 lives
Caves of Doom	(t) 4A41 00	Stops timer
Chain Reaction	(t) 4981 00	Inf lives
Championship Sprint	(t) 4646 0A	Don't lose car
Championship Sprint	(t) 2346 84	Inf spanners
Chase HQ	(t) 2022 00	Inf time
Chase HQ	(t) 3820 00	Inf turbo
Chase HQ	(t) 2074 00	Inf time
Chase HQ	(t) 3872 00	Inf turbo
Chase HQ	(t) 2467 00	Inf time
Chevy Chase	(t) 43DD 00	Inf lives
Chicago '30s	(t) 9172 F0	Inf water/food
Chimera	(t) 8316 A7	Invulnerability
Cholo	(t) 738B FF	Inf lives
Chronos	(t) 81EB 00	Bonus on screen
Chronos	(t) 8C5B 00	No background
Chubby Gristle	(t) 1468 FF	Lives
Chuckie Egg	(t) 985B 00	Inf lives
Chuckie Egg 2	(t) 67C2 FF	255 lives
Classic Axiens	(t) 380D A7	Inf lives
Classic Muncher	(t) 09E9 C9	Inf lives
Classic Arcadia	(t) 1295 00	Rapid fire
Cobra	4CCF 00	Gun shots
Cobra	4ECA 00	Inf lives
Cobra Force	417F 8F]	Inf lives
Cobra Force	41CC B3]	
Collapse	5F1D AA	Stops timer
Coliseum	68C4 00	Inf lives
Colony	(-) 2DE9 FF	Cash
Colussieum	68C4 00	Inf lives
Combat School	042C 0A	Slows timer
Combat Lynx	(t) 5899	No of choppers
Combat Zone	(t) 05FE 00	Inf lives
Combat School	(t) 042C 0A	Slow timer
Commando	(t) 14C0 FF	255 lives
Commando	(t) 072A FF	255 bombs
Conquest	(-) 77D7 A7	Inf energy
Continental Circus	(t) 0FEC 00	RANK Only gets better
Continental Circus	(t) 0B86 00	More time
Continental Circus	(t) 2772 00	Inf continues
Cop Up	195B 00	Inf lives
Count Duckula	(t) 0F6E C9	No mummies
Count Duckula	(t) 101D C9	No rocks
Count Duckula	(t) 10C7 C9	No crow bros
Crack Up	(t) 11DE C9	No bats
Crazy Cars	1233 A7	Inf time
Critical Mass	(t) 5195 30	Stops timer
Critical Mass	(-) 308E 00)	
Critical Mass	(t) 308F 00)	Inf Crafts
Crossfire	(-) 3090 00)	
Crossfire	(-) 0D1F 00	Inf lives
Curse of Sherwood	(t) 0B82 xx	No of lives
Curse of Sherwood	(t) 66AC 00	Inf lives
Cybernoid	(t) 756F 00	Permanent map
Cybernoid	(t) 0277 FF	255 lives
Cybernoid	16AF FF	Inf lives
Cybernoid 2	2AD6 C9	Invulnerability
Daley Thompson	(t) 17DE 00	Inf lives
Dan Dare	(t) 7C58 C9]	Inf lives
Dan Dare	(t) 7B91 A7	Inf lives
Dan Dare 3	(t) 06FA 00	Inf jet pack
Dan Dare 3	(t) 48BD 00	Inf ammo
Dan Dare 3	(t) F744 00	Inf lives
Dan Dare 3	(t) E7AA 00	Inf energy
Dandy	(t) 570C 06)	9990 Energy
Dandy	(t) 570D 27)	
Dandy	(t) 5710 FF	255 keys
Dandy	(t) 570E FF	255 spells
Dark Fusion	(t) 0851 00	Inf lives
Dark Side	(t) 6F7B A7]	Inf fuel
Dark Side	(t) 6E0A A7]	and shield
Dark Side	(t) 6580 18)	
Dark Side	(t) 6581 1B)	
Dark Side	(t) 6E20 00)	
Dead or Alive	(t) 6E3E 00	Inf time
Dead or Alive	(t) 52B0 00	Inf lives
Dead or Alive	(t) 514C 00	Inf bags
Death Stalker	(t) 50D6 00	Inf ammo
Death Stalker	(t) 171C 00	No ghosts
Defenders	(t) 188D 00	No demons
Defenders OE	(t) 8461 18]	Inf Lives
Defenders OE	(t) 8462 08)	
Deflektor	003C No	Select level
Deflektor	07CF 00	Inf lives
Deliverance	(t) 10FC A7	Inf lives
Desolator	0819 FF	255 lives
Destructo	(t) 5166 00	Inf lives
Destructo	(t) 3DAA 00	Invulnerability
Devils Crown	(t) 914A 00	Inf oxygen
Devils Crown	(t) A103 00	Inf bullets
Devils Crown	917F 00	Inf oxygen
Dizzy	(t) 953A 00	Inf lives
Dizzy	(t) 8925	No speed (1-10)
Dizzy Yolk Folk	(t) 185F 00	Inf lives
Dizzy down the Rapid	(t) 22ED FF	255 lives
Dominator	(t) 0736 00	Inf lives
Dominator	(t) 99A4 FF	255 lives
Doodlebug	99AE 00	Inf lives
Doors of Doom	85F6 A7	Inf energy
Double Dragon	(t) 393D 00	Inf lives
Double Dragon	(t) 384F 00	Inf time
Double Dragon	(t) 4CEB 00	Inf lives
Dragon Spirit	(t) 206B 00	Inf lives
Dragon Breed	3612 00	Inf credits
Dragon Breed	3A1E 00)	Invulnerability
Dragon Breed	3A1F 00)	
Dragonninja	(t) 13C0 00	Inf lives
Dragonninja	(t) 1D54 00	Inf lives
Dragons Lair	(t) 25B7 A7	Inf lives
Dragons Lair 2	(t) 7D3D 00	Inf lives
Driller	(t) 6F7B A7]	Inf fuel
Driller	(t) 6E0A A7)	and shields
Driller	(t) 6580 18]	
Driller	(t) 6581 1B)	
Driller	(t) 6E20 00)	
Driller	(t) 6E3E 00]	Inf time
Driller	(t) 7A19 00)	
Dun Darach	(t) 4566 00	Inf energy
Dynamite Dux	(t) 792A 18	Opens doors
Dynamite Dux	(t) 8B07 A7	Inf lives
Dynamite Dux	(t) 8D29 00	Inf ammo
Dynamite Dux	(t) 8B84 A7	Inf lives
Dynamite Dan	(t) 2DBE 07	7 Dynamite
Dynasty Wars	(t) 2B3B C9]	Inf energy
Dynasty Wars	(t) 2974 C3	Manual rapid fire
E-Motion	(t) 28A7 00	Inf lives
E-Motion	(d) 1321 00)	Inf energy
E-Motion	(t) 1329 00)	
E-Motion	(t) 2E05 00)	Balls don't explode
E-Motion	(d) 389E 18)	Pods don't grow
Eagles Nest	(t) 1AE3 00	Inf Keys
Eidolon	(t) 749F 00	Inf lives
Elite	(t) 4611 00	Inf missiles
Elite	(t) 7401 00	Inf fuel
Elven Warrior	18DF 00	Inf keys
Elven Warrior	1B26 00	Inf arrows etc
Empire Strikes Back	(t) 0746 00	Inf shields
Enduro Racer	(t) A114 00	Inf time
Escape FTPOTRM	(t) 421A 00	Inf credits
Escape FTPOTRM	(t) 4B46 00	Inf bombs
Escape FTPOTRM	(t) 6887 C9	Inf power
Exolon	(t) 2A25 00	Inf lives
Exolon	(t) 1159 00	Inf ammo
Exolon	(t) 1F7A 00	Inf grenades
Exploding Wall	(t) 12FA	No start zone
Extreme	420D 00	Inf lives
Extreme	(d) 1B3F 00	Inf lives
Extreme	(d) B061 00	Inf energy
Extreme	(d) AB11 00	Inf torch
F1 Tornado	(t) 977B 00	Invulnerability
Fairlight	(t) 7D2F 00	Inf life
Fairlight	75AB 18	Unlocks doors
Fairlight	6F88 00	Inf life
Fairlight 2	3865 18	Unlocks doors
Fairlight 2	3208 00	Inf life
Fairlight 2	3E73 00	Inf brooch (1)
Fairlight 2	3EB5 00	Inf carpet (2)
Fantasy World Dizzy	(t) A063 A7	Lives
Fast Food	570C 00	Inf life
Fernandez Must Die	(t) 538C A7	Inf lives
Feud	(t) 0E57 C9	Inf time
Final Fight	(t) 1F31	No credits
Final Fight	(t) 1F36	No Player 1 lives
Final Fight	(t) 1F37	No Player 2 lives
Finders Keepers	(t) 20CE 00	Inf lives
Finders Keepers	(t) 20CE 00	Inf lives
Firetrap	60CB FF	255 lives
Flimbos Quest	(t) 7724 00	Inf lives
Flimbos Quest	(d) 770F 00	Inf lives
Fly Spy	AB2C 18	Bombs can't kill
Flying Shark	(t) 4FA6 00	Inf smart bombs
Forgotten Worlds	00F3 00	Inf energy
Frankenstein Jnr	5DA7 A7	Inf bottle
Frankenstein Jnr	(t) 70C0 00	Remove ghosts
Front line	F41B A7	Inf troops
Fruit M/c Sim	(t) 733F 00	Inf credits
Fruity Frank	(t) 5A9B 00	Inf lives
Future Knight	(t) 06A2 80	128 lives
Future Knight	(t) 0799 A7	Inf lives
Future Bike Sim	(t) 0E7F A7	Inf lives
Game Over 2	(t) 8FEA 00	Inf lives pt 1
Game Over 2	(t) 9BC3 00	Inf lives pt 2
Game Over	(t) 1F7C 00	Inf lives
Garfield	(t) LEAC 00	Don't fall asleep
Gemini Wing	(t) 44AB 00	Inf lives
Get Dexter	(t) 7ED1 00	Inf energie
Ghostbusters	(t) 6721 00	Inf lives pt 1
Ghostbusters 2	(t) 6A01 00	Inf proton beams
Ghostbusters 2	(t) 6A83 00	Inf pkr bombs
Ghostbusters 2	(t) 6AD9 00	Inf pkr shields
Ghostbusters 2	(t) 6D63 00]	Inf fireballs pt 2
Ghostbusters 2	(t) 70FC 00)	
Ghostbusters 2	(t) 7195 00	Inf slime
Ghosthunter	(t) 61CA	No start room
Ghosthunter	(t) 61CF C9	Inf energy
Ghouls 'n' Ghosts	(d) 3182 A7	Inf lives

Game	Code	Effect
GI Hero	4D8B 00	Inf magazine
GI Hero	48E8 00	Inf ammo
Gilbert Escape Drill	(t) 0797 18	Inf time
Gilbert Escape Drill	(t) 0798 29	
Gilbert Escape Drill	(t) 1046 A7	Inf snot
Glider Rider	(t) 112B 00	Stops timer
Glider Rider	(t) 12DF 00	Inf energy
Glider Rider	(t) 1309 00	Invulnerability
Goonies	(t) 465F FF	255 lives
Ground Zero	5AF8 00	Stops timer
Gryzor	(d) 1526 A7	Inf lives
Gryzor	(t) 1526 A7	Inf lives
Gryzor	(t) 10DD 00	Invulnerability
Guardian Angel	916A	No Lives
Gun Smoke	(t) 23AC 3C	Inf lives
Gun boat	(t) 7CBD C9	Invulnerability
Gunfighter	(t) 33EC A7	Inf lives
Gunfighter	(t) 3388 A6	Inf bullets
Gunfright	0EE6 00	Inf lives
Gyroscope	(t) 5308 C9	Invulnerability
HATE	(t) 54D2 00	Inf lives
Hard Drivin'	(t) 0BBF 00	Inf time
Head Over Heels	(t) 23C3 00	Inf lives
Head Over Heels	(t) 2632 18	Inf doughnuts
Head Over Heels	(t) 29D9 00	Inf running
Head Over Heels	(t) 4750 00	Inf shield (head)
Head Over Heels	(t) 474A 00	Inf shield (heel)
Head Over Heels	(t) 247B 07	Equipment
Heartland	(t)	Inf energy
Herbert's Dummy run	(t) 0204 00	Inf energy
Herbert's Dummy Run	1D08 00	Inf lives
Highway Encounter	(t) 0077 05	Freeze aliens
Hirise	(t) 297D 00	Inf lives
Hirise	(t) 2A7D 00	Inf glue patches
Hobgoblin	(t) 1234 00	Inf lives
Hoppin' Mad	(t) 04FF 00	Inf lives
Hotrod	(t) 4B2B 00	Inf fuel
Hotrod	(t) 4B2C 00	
Hotrod	(t) 4B2D 00	
Hotrod	(t) 4B36 00	
How To Be A C B	(t) 13AC 00	Letters stay lit
Howard the Duck	(t) 329C 00	Inf lives
Hydrofool	(t) 7575 C3	Stops rust
I Ball	(t) 11B3 FF	255 lives
I Ball 2	21B2 00	Spare lives
I Ball 2	251D 00	No baddies
Ikari Warriors	(t) 5960 B7	Inf bullets
Ikari Warriors	(t) 59D8 87	Inf grenades
Ikari Warriors	(t) 5878 18	Invulnerability
Impact	(t) 6F95 C3	Inf lives
Impossamole	(t) 261C 00	Inf energy
Impossible Mission	(t) 0ED7 C9	Robots harmless
Impossible Mission	2632 21	Inf lift
Impossible Mission	2659 21	Inf snooze
Impossible Mission	265B 00	Passwords
Indy Jones Crusade	(t) 2249 A7	Inf whips
Indy Jones Crusade	(t) 31A7 A7	Inf lives
Indy Jones Crusade	(t) 31B8 00	Inf lives
Indy Jones Crusade	(t) 224B 00	Inf whips
Insector Hecti	(t) 4E74 00	Inf lives
Insector Hecti	(t) 4F2E 00	Inf lives
Insector Hecti	(t) 4F22	50/50 shots per level
Insector Hecti	(t) 7F0B 50)	
Inside Outing	(t) 0F97 C3	Inf energy
Inside Outing	(t) 4F91 00	Stops nasties
Ironman	8913 00	Inf continues
Italian Supercar	(t) 17C8 00	Inf takes
Italian Supercar	(t) 4F91 00	Inf time
Italian Supercar	(t) 0049	No start scene
Jack the Nipper 2		Inf lives
Jack the Nipper 2		Inf coconuts
Jackal	(t) 705C 00	Inf lives
Jackal	5D23 00	
Jaws	(t) 610B A7	Inf lives
Jaws	(t) 5A65 No	No lives
Jaws	(t) 3957 00	Inf lives
Jaws	04 4A45 05	5 lives part 2
Jaws	(t) 3FC0 00	Inf mega bullets.
Jaws	(t) 4E4A 00)	
Jaws	(t) 4E74 00)	
Jet Set Willy	(t) 57B7 00	Inf lives
Jet Set Willy 2	81F0 No	No of lives
Joe Blade 3	3 2EE9 00	Inf time (sub game)
Joe Blade 3	2EB6 00	Inf time (main)
Joe Blade 3	2079 A7	No baddies
Joe Blade	105D 00	Inf lives
Joe Blade	1490 00	Inf uniform
Joe Blade	1284 00	Inf keys
Jungle Warfare	(t) 3867 00	Inf lives
Jungle Warfare	(t) 801A 00	Inf bullets
Kane	(t) 1386 00	No obstacles
Karnov	(t) 40DB 00	Inf lives
Killer King	(t) 1208 C9	Invulnerability
King Tut's Pyramid	7471 00	Inf water
King Tut's Pyramid	7462 A7	Inf water
King Tut's Pyramid	7105 A7	Inf lives
Klax	(t) 0BEB 00	Inf credits
Klax	(t) 0AFC 00	Inf drops
Knight Force	(t) 48AC 00	Inf energy
Knight Force	(t) 4F12 00	
Knight Force	(t) 5B25 00	Inf time
Knight Force	(t) 546D D9	No decapitation
Knightmare	3967 C9	Inf Candle
Krakour	(t) 7B3A 00	Inf lives
Kwik Snax	(t) 19C9 00	Inf lives
LED Storm	5ADB 00	Inf energy
Laser Squad	(t) 4652 00	Inf money
Last Duel	(t) 147E 00	Inf lives
Last Duel	(t) 2BED 00)	
Last Ninja 2	(t) 5289 80	128 lives
Last Ninja 2	(t) 5ADB 00	Inf energy
Licence to Kill	(t) A6E5 A7	Inf...
Licence to Kill	(t) A4F4 00	every thing
Licence toKill	(t) A7EE 00	on all
Licence toKill	(t) ABF0 00	levels
Licence to Kill	(t) 007E 00)	
Licence to Kill	(t) 9802 00	input all
Licence to Kill	(t) 9F44 00	lives
Licence to Kill	(t) A47D 00	pokes
Licence to Kill	(t) CEFF No	No of lives
Licence to Kill	(t) 81AB No	No of lives
Light Corridor	3ACE No	No of balls
Live + Let Die	(t) 79DA 00	Inf lives
Live + Let Die	(t) 5B67 00	Invulnerability
Live + Let Die	(t) 7402 01	Inf fuel
Live + Let Die	(t) 7495 00	Inf missiles
Live + Let Die	(t) 7402 01	Inf fuel
Live + Let Die	(t) 5B67 00	Invulnerability
Live + Let Die	(t) 7417 A7	Inf fuel
Living daylights	(t) 2CED 00	Inf energy
Loopz	(t) 2A6F A6	Inf lives
Loopz	(t) 2BA6 00	64k Inf energy
Lopears	(t) 2D4E 00	64k Inf time
Lopears	(t) 2BA4 00	6128k Inf energy
Lopears	(t) 2D4C 00	6128k Inf time
Lopears	(t) 417F 8F	Inf health
Lopears	(t) 41CB B3	Inf keys + arrows
Lord of the Rings	(t) 96DE 00	Inf experience
Lord of the Rings	(t) 96DF 00)	
Lords of Chaos	(t) 96EA 00)	
Lords of Chaos	(t) 96EB 00)	
Lost Caves	(t) 1038 no	No Level number
Mag Max	(t) 1AC1 C9	Invulnerability
Magicland Dizzy	(t) F793 C9	Super jump
Magicland Dizzy	(t) FE9B 00	Walk on water
Magicland Dizzy	(t) 0093 00	Fish and traps
Magicland Dizzy	(t) 0135 C9	Inf snorkle
Marauder	(t) 030E FF	Lives
Marauder	(t) 0309 FF	Smart bombs
Marsport	7456 18	Unlocks doors
Mask	(t) 8B16 3A	Inf damage
Max Headroom	(t) 12A5 00	Inf energy
Max Headroom	(t) 1287 00)	
Max Headroom	(t) 12D0 00)	
Mazie	(t) 8B00 00	Inf lives
Mega Apocalypse	(t) 01FF 00	Inf lives
Meganova	(t) 67C8 00	Inf lives
Metal Army	(t) 736C 00	Inf lives
Metal Army	(t) A3A4 00	Inf lives
Metal Army	(t) 8786 00	Inf ammo
Metrocross	(t) 6433 09	Timer
Metrocross	(t) 6435 09)	starts at
Metrocross	(t) 6435 C9)	9.99
Metropolis	(t) 2C69 00	Inf lives
Miami Cobra GT	(t) C7C8 00	Inf time
Miami Vice	(t) 0352 A7	Inf energy
Miami Cobra Rally	C7C8 00	Inf time
Microball	(t) A54E 00	Inf balls
Midnight Resistance	1557 00	Inf die, extra level
Mikie	62LC C3	Invulnerability
Mission Genocide	(t) A0CF C9	Invulnerability
Mission Jupiter	(t) b154 00	Inf fire power
Molecule Man	(t) 9EBD 00	Inf time
Monty Python	(t) 8B91 FF	Lots of lives
Monty on the Run	(t) 4388 00	Inf lives
Moon Buggy	(t) 9C8C 00	Inf lives
Motorcross Sim	(t) 8438 No	Zone number
Motorcross Sim	(t) 05C7 00	Bikes
Moving Target	(t) 002B 00)	
Moving Target	(t) 64CF 00	Inf bullets
Muggins the Spaceman	11A9 00	Inf shots
Mutant Fortress	(t) 0796 A7	Inf lives
Mystery on the Nile	(t) 0408 00	Inf lives
Mystical	(t) 1E3F 00	Inf lives
Myth	(t) 886D 00	Inf credits
Myth	(t) 1401 A7	Inf lives level 1
Myth	(t) 13A4 A7	Inf lives level 2
Myth	(t) 140C A7	Inf lives level 3
Myth	(t) 1414 A7	Inf lives level 4
Navy Moves	(t) 7DD1 FF	255 lives
Navy Moves	(t) 048C BE	Inf lives
Nemesis	(t) 9BA0 05)	
Nemesis	(t) 989F 18	Invunerability
Nemesis	(t) 9D74 00	Inf lives
Nemesis	(t) 9682 D4	Shield
Nemesis	(t) 95AA 20	laser + double
Nemesis	(t) 9D78 00	Inf lives
Nemesis	(t) 9D74 00	Inf lives
Netherworld	(t) 04CF 00	Inf lives
Nightbreed	(t) 7ED3 00	Inf lives
Nightshade	(t) 88D1 00	Inf lives
Ninja Commando	(t) 522D 00	Inf credits
Ninja Spirit	(t) 4EA7 00	Inf lives
Nodes of Yesod	(t) 0443 00	Time
North & South	(t) 13B2 No	No bags
North & South	(t) 28A7 00	Inf lives
North & South		
Ollie and Lissa 3	5030 C9	Inf wax for candle
Ollie and Lissa 3	(t) 636D C9	Removes ghosts
On the Run	A48D 00	Energy
On the Run	82F2 00	Inf lives
Op Thunderbolt	(t) 18FF 00	Inf bullets
Op Thunderbolt	(t) 5362 00	Inf credits
Op Wolf (It gun)	(t) DFE9 00	Inf lives
Op Wolf (It gun)	(t) 2C75 C9	Inf energy
Op Wolf (It gun)	(t) 2CF0 00	Inf magazines
Op Wolf (It gun)	(t) 2584 A7	Inf grenades
Op Wolf (It gun)	(t) 256F 00	Inf bullets
Op Wolf (It gun)	(t) 25D6 00	Inf credits
Op Wolf (It gun)	(t) 2C8D C9	Inf energy
Op Wolf (It gun)	(t) 263C 00	Inf magazines
Op Wolf (It gun)	(t) 25EA A7	Inf grenades
Op Wolf (It gun)	(t) 25D5 00	Inf bullets
Op Wolf (It gun)	(t) 263C 00	Inf credits
Operation Gunship	858E 00)	
Operation Gunship	8591 00)	
Operation Gunship	8053 00	Inf armour
Operation Gunship	855B 00	Inf fuel
Operation Gunship	8E9B 00	Inf bombs
Operation Hanoi	6F62 00	Inf life
Operation Hanoi	(t) 8AB3 A7	Inf ammo
Operation Hanoi	(t) 8ACF A7	Inf grenades
Operation Hormuz	(t) 8F0E A7	Inf lives
Operation Hormuz	(t) 1869 00	Inf Harriers
Quit Run	2253 00	Inf time
Outrun Europa	(t) EE81 00	Inf time
Outrun Europa	(t) FF24 FF	255 credits
Overlander	(t) 1815 00	Inf lives
Overlander	(t) 1815 00	Inf lives
P47 Thunderbolt	(t) 27DC 00	Inf life
Pacland	(t) 2C78 FD	253 lives
Paladin	97C2 00	Inf lives
Paladin	9750 00	Inf time
Palitron	(t) 2427 00	Inf lives
Paperboy	(t) 05AC 00	Inf lives
Parabola	(t) 8514 00	Inf lives
Paws	293B 00	Inf stamina
Periscope up	(t) 1D00 00	Inf lives
Periscope up	(t) 1D5C 00	Inf scouts
Periscope up	(t) 1156 00	Inf fuel
Periscope up	(t) 1181 00	Inf air
Peter Pack Rat	8702 3A	Inf time
Peter Pack Rat	8EDF 00	Stops Dys
Pick 'n Pile	039F FF	255 lives
Pipemania	(t) 263B 00	Stops timer
Plasmatron	(t) 0352 FF	Inf damage
Popeye 2	(t) 1767 00	Inf bonus
Powerdrift	(t) 2A82 FF	255 lives
Powerdrift	(t) 2AA1 FF	255 lives
Predator	(t) 97F1 FE	254 lives
Predator	(t) C7C6 39	Timer
Predator	(t) C7C7 33	99 mins
Predator	(t) C7C9 39	Inf lives
Predator	(t) C7CA 39	85 lives
Predator	(t) 97F3 FE	Lots of ammo
Predator	(t) FFF3 FF	Lots of grenades
Prince of Persia	(t) 935A 00)	
Prince of Persia	(t) 235A 00	Inf time
Prison Riot	(t) A11B 00	Inf time main
Prison Riot	(t) A13C 00	Inf time sub
Pro Boxing Sim	(t) 1521 No	Lives player 1
Pro Boxing Sim	(t) 1522 No	Lives player 2
Pro Powerboat Sim	(t) 883C No	Lives 1
Pro Powerboat Sim	(t) 8841 No	Mines 1
Pro Powerboat Sim	(t) 882C No	Lives 2
Pro Powerboat Sim	(t) 8831 No	Mines 1
Prohibition	(t) 0FEC FF	255 lives
Prohibition	(t) 0FB1 B7	Inf hide time
Prohibition	(t) 0B69 B7	Inf lives
Prohibition	(t) 198E 00	No shooting back
Project Future	(t) 9564 FF	255 lives
Project Future	(t) 9B9D FF)	
Psycho Pigs UXB	2418 7F	128 lives
Psycho Hopper	(t) 0303 00	Inf lives
Psycho Hopper	(t) 2146 04	Extra time
Pulsator	(t) 5395 00	Inf lives
Pulsator	(t) 5396 00)	
Puzznic	(t) 3BC0 FF	Lots of retries
Puzznic	(t) 599C 00	Stops clock
Puzznic	(t) 599D 00)	
Q10 Tankbuster	(t) C512 00	Inf lives
Quest for Mindstone	(t) 5BBF FF	255 gold
Quest for Mindstone	(t) 5C91 FF	Kyle strength 255
Quest for Mindstone	(t) 5C92 FF	Merle strength 255
Quest for Mindstone	(t) 5C93 FF	Quin strength 255
Quest for Mindstone	(t) 5C94 FF	Taina strength 255
Quest for Mindstone	(t) 5C9B FF	Kyle psyche 255
Quest for Mindstone	(t) 5C9C FF	Merle psyche 255
Quest for Mindstone	(t) 5C9D FF	Quin psyche 255
Quest for Mindstone	(t) 5C9E FF	Taina psyche 255
R-Type	927B A7	Inf credits
R-Type	(t) 91E7 C9	Invulnerability
R-Type	(t) 91DF 00	Inf lives
R-Type	(t) 90QC A7	Stops clock
Race Against Time	(t) 8E7C 39	5 minutes
Race Against Time	20BF 00	Inf restarts
Rainbow Islands	(t) 1C1E 00	Inf lives
Rainbow Islands	(t) 42AC 01	Kill guardian 1 hit
Rainbow Islands	(t) 8E9C 00	Inf lives
Rambo	(t) 1BA6 00	Inf continues
Rambo 3	(t) 6883 A7	Inf energy (p1)
Rambo 3	(t) 68E1 A7	Inf energy (p2)
Ramparts	(t) 798C 00	Slows energy
Ranarama	(t) DF94 A7	Inf health
Rasputin	(t) 2353 00	Inf lives
Rastan	(t) 7C8D 00	Inf lives
Rastan	(t) 7C80 00	Inf lives
Red Heat	(t) 9FD1 00	Inf energy
Red Heat	(t) 1F5C 00	Inf energy
Red Heat	(t) 9F13 00	Inf energy
Red Heat	(t) A41 00	Inf bullets
Red Heat	(t) 95EC A7	Inf lives
Reflex	(t) 867E A7	Inf lives
Renegade	(t) 77B2 00	Inf power
Renegade	(t) 0FBB FF	Stay on platform
Renegade 3	(t) 0FE1 FF	Stay on platform
Return of Jedi	(t) 4DDF C9	Inf lives
Return of Jedi	(t) 0680 A6	No obstacles
Revolution	(t) 0677 86)	
Revolution	(t) 071A 00	Inf lives
Revolution	(t) 0F62 00	Inf lives
Rex	(t) 3F11 00	Inf lives
Rick Dangerous	(t) 8823 A7	Inf time
Rick Dangerous	(t) 9F3S A7	Inf fire
Rick Dangerous	(t) 9F90 A7	Inf dynamite
Rick Dangerous	(t) 9F99 C3	Invulnerability
Rick Dangerous 2	(t) 8623 A7	Inf time
Rick Dangerous 2	(t) 9192 A7	Inf laser
Rick Dangerous 2	(t) 9734 A7	Inf bombs
Ricochet	(t) 6331 00	Inf lives
Road Runner	(t) 023F 00	Inf lives
Roadblasters	(t) 24B4 01	Inf fuel
Roadblasters	(t) 3587 10	Extra extras
Roadrunner	(t) 023F 00	Inf time
Robocop	(t) 3F23 00	Inf energy
Rocky Horror Show	(t) 2413 FF	255 time
Rocky Horror Show	(t) 2414 FF)	
Rogue	(t) 838A 64	100 strength
Rogue Trooper	(t) 3554 00	Inf medi-kits
Rolling Thunder	(t) 4720 00	Inf lives
Rolling Thunder	(t) 4740 00	Inf energy
Ruff & Ready	(t) 53D1 00	Inf time
Rygar	(t) 2C3B A7	Inf lives
SAS Combat Simulator	(t) 49AA 00	255 grenades
SAS Combat Simulator	(t) 3286 FF	255 lives
SAS Combat Simulator	(t) 3288 FF)	
SDI	(t) 3A49 00	Inf lives
SDI	(t) 3A7C 00	Inf lives
Saboteur	B796 00)	Inf lives
Saboteur	B78E 00)	
Saboteur	(t) 33FA 00	Timer
Saboteur	(t) 3AC6 00	Longer jumps
Saboteur 2	(t) 3C85 00	No enemies
Sabre Wulf	(t) 960E 00	Inf lives
Saigon Combat Unit	(t) A570 A7	Inf lives
Saigon Combat Unit	(t) A398 00	Inf lives side A
Saigon Combat Unit	(t) A3FE 00	Inf ammo side A
Saigon Combat Unit	(t) A412 00	Inf bombs side A
Saigon Combat Unit	(t) A4C7 00	Inf lives side B
Saigon Combat Unit	(t) A52D 00	Inf ammo side B
Saigon Combat Unit	(t) A541 00	Inf bombs side B
Salamander	3237 FF)	
Salamander	40FC C9	Invulnerability
Salamander	4B55 C9	Watch the level
Smash TV	(t) 1D5C 00	Inf lives
Satan	(t) 7C4C C9	Inf time
Satan	(t) 6DEB 00	Inf lives
Savage Part 1	(t) 033C FF	255 lives
Savage Part 2	(t) 2611 00	256 lives
Savage part 3	(t) 0C3B 00	256 lives
Scooby Doo	(t) 7C95 9F	No ghosts
Scooby Doo	(t) 7A26 00	Inf lives
Score 3020	68E9 00	Inf lives
Seymour to Hollywood	61C8 00	Inf lives
Shackled (Go crazy)	(t) D732 09	Pulse 99999
Shackled (Go crazy)	(t) D733 99	Player 1
Shackled (Go crazy)	(t) D734 99)	
Shackled (Go crazy)	(t) D771 09	Pulse 99999
Shackled (Go crazy)	(t) D772 99	Player 2
Shackled (Go crazy)	(t) D773 99)	
Shadow Skimmer	(t) 049F 30	Extra lives
Shadow of the Beast	(t) 2920 00	Inf energy
Shadow Dancer	(t) 2106 A7	Inf time
Shadow Dancer	(t) 06A2 A7	Inf credit
Shadow Dancer	(t) 0FC0 A7	Inf magic
Shadow of the Beast	(t) 2920 A7	Inf energy
Shanghai Warriors	(t) 3331 00	Inf lives
Shaolins Road	(t) 1B10 A7	Inf lives
Shinobi	(t) 15B7 65	100 lives
Shinobi	(t) 1407 00	Inf time
Shinobi	(t) 0F62 00	Inf lives
Shinobi	(t) 3758 00	Inf time
Shockway Rider	(t) 9181 no	No of lives
Sidearms	0686 FF	Lots of lives
Sidearms	(t) 4069 00	Inf lives
Sim City	(t) 389B FF	Cash
Sim City	3CF4 FF)	
Skate Crazy	(t) 8D3F 00	No checkpoints
Skatin' USA	(t) 4976 00	Inf energy
Skatin' USA	(t) 48D3 00	Inf shots
Skateboard Joust	(t) 177F 99	99 energy points
Skweek	(t) 1784 99	99 shots
Skweek	(t) 9974 FF	Lives player 1
Skweek	(t) 9982 FF	Lives player 2
Skweek	(t) 72A0 C9	Invulnerability
Slap Fight	(t) 4F32 FF	255 lives
Slightly Magic	(t) 40F1 00	Inf lives
Slug	(t) 073B 00	Inf lives
Smash TV	(t) 09A6 00	Inf lives
Snowball in Hell	(t) 101A 00	Inf lives

Game	Code	Effect
Soldiers of Light	(t) 57FA 00	Lives 1
Soldiers of Light	(t) 5AA9 00	Lives 2
Sonic Boom	(d) 8CC6 00	Inf credits
Soul of a Robot	(t) 2304 FF	255 lives
Soviet Fighter	0CF1 00	Inf fuel
Space Harrier 2	(t) 1003 00	Inf lives
Space Harrier 2	(t) 0793 00	Inf lives
Space Harrier 2	(d) 0476 00	Inf lives
Space Rider	(t) 5FC4 00	Inf lives
Space Trader	(t) 74CD FF	255 shields
Space Trader	(t) 74CE FF	255 lasers
Space Trader	(t) 74CE FF	255 exterior
Space Trader	(t) 74CF FF	255 interior
Space Trader	(t) 74D0 FF	255 computer
Space Trader	(t) 4DFA	No cash
Space Trader	(-) 659A 00]	No time limit
Space Trader	(-) 659B 00]	or landing tax
Spaced Out	5886 00	Inf time
Speedking	(t) 152A C9	Stops clock
Speedzone	(t) 2832 A7	Inf lives
Spellbound Dizzy	(t) BC52 00	Inf lives
Spike in Transyvania	(t) 1691 00	Inf lives
Spikey Harold	(t) 9C33 A7	Inf lives
Spindizzy	(t) A85E C9	Inf time
Spindrome	(t) 7C4A 00]	Inf lives
Spindrome	(t) 7667 00]	Inf lives
Spitfire	(t) 1B2A 00	Inf spits
Spitting Image	36F3 C1	Always win
Spitting Image	(t) 2F23 A7	Inf lives
Split Personalities	(t) 0FF6 C9	Stops fuse
Split Personalities	(t) 090A 00	Inf lives
Spooky Castle	(t) 4515 00	Inf Shields
Star Wars	03E4 00	Inf lives
Stardust	(t) 1B98 A7	Inf lives
Steel Eagle	(t) 16C7	No Starting position
Stormbringer	(t) 6B7D C9	Invulnerability
Stormlord	(t) 839F 00	Inf credits
Stormlord	(t) 9197 00	Inf lives
Street Fighter	(t) 944C 00	Time limit 9999
Strider	(t) 2BDE A7	Inf energy
Strider	2BE9 00	Inf lives
Strider	2AC2 00	Inf time
Strider	12E6 A7	Inf time
Strider 2	017E 00	Inf lives
Strider 2	12E6 A7	Inf time
Strike Force Cobra	6943 A7	Stops timer
Stunt Car Racer	(d) 2177 00	Inf boost
Stunt Car Racer	(d) 98C3 C9	Invulnerability
Subterranean Stryker	(t) 7D36 A7	Inf lives
Super Robin Hood	(t) 6C97 C9	Invulnerability
Super Robin Hood	(t) 6122 00	Faster Robin
Super Hero	(t) 3763 00]	Inf lives
Super Hero	(t) 376A 00]	
Super Scramble	(t) A8B1 00	Stops clock
Super Tank Sim	(t) 992B 00	Inf lives
Super Tank Sim	(t) 37F6 00	Improves firepower
SuperTrux	(t) 1991 00]	Stops clock
SuperTrux	(t) 9961 00]	
SuperTrux	(t) 9A25 00]	
SuperTrux	(t) 94F5 00	Less crashes
SuperTrux	(-) 9BE2 00	Inf lives
Supersam	(t) 30AC 00	Inf Lives
Switchblade	(t) 2528 00	Inf Weapons
Switchblade	(t)	
Sword Slayer	(t 14A8 3C)	Invulnerability
Sword Slayer	(t 14B6 3C)	
T Bird	(t) 1433 A7	Inf smart bombs
T Bird	(t) 15AB A7	Inf lives
TLL	(t) 917A 00	Inf lives
TLL	(t) A6A2 A7	Inf fuel
TLL	(t) 909B 00]	Inf time
TLL	(t) 909C 18]	do both
TLL	(t) A8C8 00]	Inf bombs
TLL	(t) A99B 00]	do both
TLL	(t) 0F28 A7	Inf lives
Target Renegade	(t) 10B0 00	Inf lives
Tau Ceti	(t) 4DA3 00	Inf lives
Technician Ted	(t) 6086 01]	Inf nuke
Techno Cop	(t) 8F10 A7]	
Techno Cop	(t) 77B3 C9	Inf damage
Techno Cop	(t) 909F 00	Inf lives
Techno Cop	(t) 5D5D C9]	Put all pokes
Techno Cop	(t) EFB8 00]	in to get
Teenage Turtles	(t) 6275 00]	Inf lives
Teenage Turtles	(t) 0CC6 75]	and protection
Teenage Turtles	(t) 0CC8 18]	from falling
Teenage Turtles	(t) 0CC9 0C]	buildings
Tennis Cup	(-) 8968 3A	Inf credits
Terra Cognita	(t) 19AE 00	Inf lives
The Apprentice	(t) 919E 00	Inf lives
The Apprentice	(t) 8978 00	Inf lightning
The Hit Squad	46F9 00	Inf life
The Munsters	(t) 1EE7 A7	Inf energy
The Prize	(t) 350D 00	Inf lives
The Prize	(t) 3C00 FF	255 bullets
The Plot	1C62 00	Inf fuse
The Spy Who Loved Me	(t) 113C 00	044 cheat
The Spy Who Loved Me	(d) 123C 00	6128 cheat
Thing Bounces Back	(t) 9335 C9	Inf lives
Thrust	(t) 4347 C3	Inf lives
Thrust 2	(t) 26BB 00	Inf lives
Thunderbirds	(t) 5E48 A7	Level 1 time
Thunderbirds	(t) 5FFC A7	Level 2 time
Thunderbirds	(t) 57C6 A7	Level 3 time
Thunderbirds	(t) 5746 A7	Level 4 time
Thundercats	(t) 787A	No No of lives
Thunderjaws (demo)	47CC A7	Inf credit
Tiger Road	(t) 56F1 00]	Inf lives
Time Scanner	(-) 1211 00]	Inf balls
Time Machine	733D 00	Inf lives
Tir Na Nog	9ACE 00	Invulnerable
Tir Na Nog	A083 18	Unlocks doors
Titan	(t) 1075 No	01-10 for level
Titan	(t) 1225 FF	255 lives
Titanic	41a2 A7	Inf oxygen
Titanic	41F9 00	Inf lives
Titanic	3008 00	Inf bullets
Titus the Fox	(d) 1B7A FF]	255 lives
Titus the Fox	(t) 2147 FF]	
Titus the Fox	(t) 2011 FF	255 energy
Tombstowne	(t) 90C3 00	More energy
Tomcat	(t) 93F6 A7	Inf lives
Toobin'	(t) 9CE5 00	Inf credits
Toobin'	(t) 9CE5 A7	Inf credits
Top Cat	7C09 30	Stops clock
Trantor	(t) 33A4 00	Inf lives
Trantor	(t) 2A7F 00	Inf time
Trantor	(t) 0C72 FF	Inf health
Trantor	(t) 1B88 00	Inf fuel
Trantor	(t) 1614 00]	Invulnerability
Trantor	(t) 17D7 00]	
Trantor	(t) 1871 00]	
Treasure Island Dizzy	(t) 012E 18]	Immunity to
Treasure Island Dizzy	(t) 8B0A 18]	just about
Treasure Island Dizzy	(t) 8A92 18]	everything
Troll	5461 00]	Inf lives
Turbo Esprit	6FF7 7E	Inf lives
Turbo Outrun	1487 FF	255 credits
Turbo Outrun	(t) 15ED 00	Inf credits
Turbo Tortoise	(t) 600B 00	Inf bullets
Turrican 2 (demo)	9B47 A7	Inf lives
Turrican 2 (demo)	3E65 3E]	Inf smart bombs
Turrican 2 (demo)	3E66 FF]	
Turrican	(t) 04F0 00	Inf vitality
Turrican	(t) 8F63 C3	Inf lives
Twin Turbo V8	(t) 81BB 00	No corners
Twin Turbo V8	(t) A550 00	Inf time
Twin Turbo V8	(t) 1BEE	99 lives
Twin Worlds	345E A7	Inf energy
Twin Worlds	3658 00	Higher jump
Typhoon	B084 00	Inf lives
Ultima Ratio	(t) 31D9 00	Inf lives
UN Squadron	1CDB 00	Inf lives
UN Squadron	(d) 1C1B 00	Inf credits
UN Squadron	(d) FE07 A6	Music off
Untouchables	0FD2 A7	Inf lives
Uridium	(t) 1FC2 00	Inf lives
Uridium	(t) 0962 00]	No homing
Uridium	(t) 0963 00]	missiles
Uridium	(t) 0964 00]	all 3 pokes
Vampire	(t) 19AE 00	Inf lives
Victory Road	(t) 385E FF	255 lives (p1)
Victory Road	(t) 3B6F FF	255 lives (p2)
Vigilante	5816 A7	Inf life
Vigilante	(t) 8C2B A7	Inf lives
Vindicators	(t) 07D3 F0	240 lives player 1
Vindicators	(t) 07BB F0	240 lives player 2
Vindicators	(t) 1667 C9	Inf fuel
Vindicators	(t) 15BF 00	Inf stars
Vindicator Level 1	05B4 A7	Inf oxygen
Vindicator Level 1	0BD9 A7	Inf lives
Vindicator Level 2	1D21 A7	Inf lives
Vindicator Level 2	12F9 A7	Inf lives
Vindicator Level 3	060E 00	Inf time (part 1)
Vindicator Level 3	0615 00	Inf time (part 2)
Vixen	3514 A7	Inf lives
Wanderer 3D	(t) 154E C9	Inf energy
Wanderer 3D	(t) 1578 00	Inf shields
Wanderer 3D	(t) 4706 05]	Shortens route
Wanderer 3D	(t) 4718 00]	through
Wanderer 3D	(t) 4724 05]	black holes
Warlock	(t) 264F 00	Inf lives
WEC Le Mans	(t) 8A58 FF]	Inf lives
West Bank	(t) 8CF4 A7]	
West Bank	(t) 92DD A7]	
Wizard Willy	1C1C 00	Inf lives
Wizball	(t) A92B C3]	Inf lives
Wizball	(t) A93A A7]	
Wonder Boy	52E2 00	Inf lives
Wonder Boy	(t) 52E5 00	Inf lives
Wrestlemania	(d) 2A64 00	Inf credits
Wriggler	(t) 8018 00	256 lives
Xcel	(t) 33A4 00	Inf lives
Xenon	(t) 0827 C9	Inf lives
Xenon	(t) 080B C9	Inf energy
Xevious	03F0 FF	255 lives
Xybots	(t) A8F3 C9	Inf credits
Xybots	(t) 70F3 00	Inf credits
Yabba Dabba Doo	(t) 0AE0 A7	Inf lives
Yie Ar Kung Fu	883E 00	Inf lives
Yogi's Great Escape	(t) 07CC A7	Inf lives
Zarkon	(t) A282 C9	No badstars
Zarkon	(t) A0C7 C9	Invulnerability
Zarkon	(t) 2B1F C9	No enemy craft
Zarkon	(t) 8B69 18	Inf lives
Zolyx	(t) 4390 00	Inf lives
Zorro	(t) 57BC FF	255 lives
Zub	(t) 4319 00	Droids harmless
Zynaps	(t) 6139 C9	Rapid fire
Zynaps	(t) 5F7E FF	255 lives
Zynaps	(t) 4A3F 00	No enemy craft

Reaction

Welcome to Reaction! As well as your letters, we've also got an open letter from the publisher of Amstrad Action to you, the readers.

Don't try this at home, kids!

As a newcomer to the world of computers, and very ancient into the bargain, I find much of what I read in your magazine a complete mystery. However, I have made a discovery which I wonder if many of your readers know about.

When a tape fails to load properly and the screen goes either blank or comes up with the message "read error", it may be possible to cure the problem. I have encountered this on two occasions and each time I stopped the tape at the place where the fault occurred, removed it from the tape player, carefully pulled out a couple of feet of the tape, placed the tape between a couple of layers of smooth material (a couple of pillow cases are ideal), and then carefully ironed over the tape with a warm iron. After winding the tape back in and then rewinding in the computer tape player the tape then loaded perfectly! Am I an old genius, or what?
Mrs V Crossley
Polegate, Sussex

Erm, I'm not entirely sure how good an idea it is to pull out bits of your covertape and iron them. I mean, it is a good idea in itself as you're straightening out the tape. But, and I would stress this, please don't try this if you're one of our younger readers. Not only will you be unable to reach the ironing board, but irons are very dangerous things. Ask your mum or dad to iron your tape for you. Alternatively, for that real professional touch, take it to the launderette and get it done there! **Ed.**

The awful truth

I have been playing *Tir Na Nog* for at least three years and I seem to be unable to complete the game. This is despite playing it in several different ways.

I am now worried that this is a game which is perhaps impossible to complete. Several clues seem to point towards this conclusion...
★ None of the Lords and Ladies seem to have completed this game, although it's been around for ages.
★ No one has answered my previous pleas for help in AA.
★ You gave the game away a year ago, so someone must have tried it.
Can you confirm the truth about this game? Can you force the writer to come clean? This is a last desperate plea, I must know if there is hope.
Dave Gahan
Tupsley, Hereford

There are two schools of thought as regards this little poser. Some people say that the reason nobody's ever finished the game is simply because it's so dull. The other school, of which I'm a member, tend to think that the rest of the world is conspiring against you - including the programmer! No, seriously, I'm sure there's nothing wrong with the program itself otherwise we would have had other letters about it and, erm, we haven't.

By the way, are you that Dave Gahan out of Depeche Mode? Is that the reason you haven't released many records recently - because you've been too preoccupied with Tir Na Nog? **Ed.**

Naughty, naughty, very naughty!

In issue 88 of AA, I glanced at a program by Simon Clark called *Blocks*. Very recently I had borrowed some copies of ACU from someone, and I noticed a striking resemblance to a ten-liner called *Tower of Brahma* by Chris Wooton. Simon Clark has taken *Tower of Brahma*, added bits and bobs to it, called it *Blocks*, and put it under his own name. I have supplied a photocopy of the original program, which was in the April 1990 issue of ACU. Whether this deserves £20 is beyond me, but I don't think it does. Maybe Simon thought we wouldn't notice, eh? So don't do it again, mate.
Nicholas Campbell
Newtonmards, Northern Ireland

I suppose it is a bit on the naughty side, but it's not the naughtiest thing I've ever seen. After all, it's not as if it's exactly the same program, Simon did make some changes. Maybe those bits aren't worth £20, but all we can do is try and be more vigilant in the future.

By the way, did you know that Brahma is a Brazilian beer with a really smart advertising campaign? Y'see, if you buy a bottle of Brahma then ten pence, or something, goes towards saving the rainforest. The best bit is the posters, there's all these bright parrots sitting in the forest and underneath it says something like 'Drink Brahma and be popular with the birds.' It's very smart. **Ed.**

Life after Protext

Why is it always *Protext* which is put forward as the last thing in word processing for the CPC? I have to admit that I was an avid user of the program, that is until *Brunword*.

I have been using *BW* now for about two and a half years for page layout including illustrations.

Logos are designed using the *Easydraw* program which was published in the now-defunct Attack magazine, any cleaning up being done in the *Dartscan* program. Illustrations are scanned using *Dartscan*.
M F Gurney
Billericay, Essex

I must admit that Mr Gurney's letter and enclosed example looked very good indeed. We've reproduced his pictures, so you can see the quality. So, if you're thinking of getting a word processor, this is certainly one to think about. Alternatively, you could wait until next month and get Tasword free.
Ed

Soccer simulation shock

A few months ago I came into a little money, only a little. So I saw your rave reviews on the football compilation *Soccer Stars* and I ordered it from MJC Supplies. I received the game and, as you said, it was great. *Gazza 2* was good fun, as was *Kick Off 2*, and *Emlyn Hughes* was excellent. The problem came when I loaded *Microprose Soccer*. It loaded fine, and I saw in the instructions to go for Microprose International Challenge for a quick start, this was not in my options menu. Your review said that you used the 11-a-side facility and it said nowhere in the instructions that you couldn't get 11-a-side on the Amstrad. I was quite put off as the six-a-side American facility isn't that good. Please could you give me an address where I could find out whether I could get this facility or a new disk.
Jon Joasbury
Ivybridge, Devon

Well, either our reviewer was lying, or you can get 11-a-side and you just haven't found it yet. You could either contact MJC supplies and see if they forgot to include part of the instructions. You could just find the address of the original publisher on the game box itself, and try contacting them. **Ed.**

Console conundrum

I am the proud owner of the Amstrad games console, the Amstrad GX4000. I have not yet bought any games, but I have been out looking for some. After a day of no success, I decided to go to the shop where I bought the console itself. They told me that I wouldn't find any in the shops, but that if I became a member of the Amstrad User Group then that had games for my particular console. Unfortunately, they had no idea where I should write off to, so I thought, "Who better than Amstrad Action?"

Could you please send me information about this club if it does exist, and where I can find games if it doesn't? I would very much appreciate it as I'm getting tired of *Burnin' Rubber*.
Giancarlo Cassano
London

Okay, first the bad news - the Amstrad User Group disbanded quite a while ago. But, and here's the good news, you can probably get console games from a mail order company called Trade-In Post. They advertise in AA on a fairly regular basis, look in a few of your back issues. **Ed.**

Some questions

I am writing to congratulate you on producing a good magazine which is a good read for gamesplayers and serious users alike. I have several questions to ask you, they are...
1. What is the value of the components in a GX4000 console? Why did it have little commercial success?
2. What games do you have lined up as covertape games in the near future?

3. How much of the cost of an £11.99 computer game goes to the software house and how much to the retailer?
4. Why don't you include slightly more adverts (ie – you charge less for adverts) and then you could produce a proper magazine with more than your measly 58 pages.
Peter Barnes
Stroud, Gloucester

1. The value of the components is probably around £30, but you've got to remember that they're buying in bulk. The reason it had no commercial success was because it was aimed at CPC users - people who preferred to have the CPC+ which was effectively a console and a CPC in one box.
2. Oooh, let's see... we've got Wizard's Lair, Syntax and European Superleague amongst others. And they're all pretty smart.
3. It depends on the retailer. Big retailers like Smiths and Menzies earn more from their games than Fred Bloggs, independent retailer.
4. A lot of people don't like to admit this, but adverts make money. Our ads aren't actually that expensive (as ads go). If we charge less for ads then we need more ads to get the same amount of money as we were getting before. (If you see what I mean.) We'd have to sell loads more ads before we could afford an increase in pages. **Ed.**

All together now

Firstly I would like to point out that if anyone was thinking of following up the article about the huge amount of CPC software available in France, don't bother. When I went, the full price shelves in Auchen were all but empty and, although the range of budget games was large, there were no outstanding titles. This was just before Christmas, when you'd expect the shelves to be quite full. I would also like to point out that in the latest issue of Check It Out, a young people's buying guide, not only was the great AA given a very poor 32%, but CPC Attack got 40%.

Also, snide comments were made about the amount of life left in the CPC. I urge all faithful AA readers to boycott this pathetic mag that's obviously written by Gameboy-playing idiots. Together we stand united.
Fraser Hewitt

Sandwich, Kent
United we stand, divided we fall! Workers of the world unite, we have nothing to lose but our minds, and they aren't our own anyway! Remember kids, the state is your enemy! Storm the barricades! Lock yourself in your bedroom! Refuse to eat anything but crisps and... Oi, Adam! What are you doing here? Get out, shoo! **Ed.**

I know a man who does!

I have grave news – the rare oasis in London, Virgin Gamestore, has stopped stocking Amstrad software. This means that the only way Amstrad owners in the south can get hold of software is by ordering through mail order or taking a daytrip to France.

I have found a shop that does sell Amstrad software and isn't thinking about quitting the Amstrad market, but unfortunately for me it's way up in Coventry. It's called K-Soft, it's in Cathedral Lanes and has over four shelves of CPC stuff, but no cartridges.
Chris Edwards
Surbiton, Surrey

There is actually a very good mail order company called EDOS (which stands for Electronic Distribution of Software). They have masters of absolutely tonnes of games, you tell them what game you want and they duplicate it for you and send it off. It's all perfectly above board and legal, and the software houses know all about it. So don't worry! For a free catalogue simply send a large sae to EDOS, Computer Visions, 30a School Road, Tilehurst, Reading, Berkshire RG3 5AN. **Ed.**

A face in the crowd

Has anyone watching Gamemaster noticed a certain Scottish chap commenting on the challenges called Frank O'Connor? The challenges he commented on were for the SNES. Is this the same chappie that used to work for AA and left just before Adam came along? Traitor!
Matthew Long
Calcot, Berkshire

You're spot on, Matthew. That cheery chappie was none other than the same Frank O'Connor who once graced these pages with his wicked wit

Balrog

Adventuring news, views and awards.

Welcome to yet another missive from the mighty Balrog spreading the word of adventure to all his followers. There's no hanging about this month, we go straight into the most awaited event in the adventurers' calender...

The Balrog awards results:-

The response to the Balrog awards was very impressive – letters appeared from all over the World, and the results were as follows:-

The Top Five Adventures Of All Time:

5 *Magnetic Moon*   FSF Software
4 *Price of Magick*   Level 9
3 *Hobbit*   Melbourne House
2 *Bard's Tale*   Electronic Arts

According to AA readers, *Helvera Mistress of the Park* is the best adventure of all time. Well done to Bob Adams, the author, for writing such a popular game!

The award for the best text adventure of the year was a close-run thing but the winner was... (sound of an excitedly-ripped open envelope)

Aargh! To think we give this thing freelance work!

Helvera Mistress of the Park!

The best graphic adventure of the year was also very close, but eventually Rob Buckley's *Eve of Shadows* came out on top. *Eve of Shadows* also scooped the award for best PD adventure.

Wow Software deservedly (I think!) won the title of best software house (well done Joan!) and **Adventure PD** won the title of best public domain library.

Adventure personality of the year was another close run award (at one point it looked like yours truly would win but unfortunately I didn't!) which was eventually given to **Debby Howard** of Adventure PD.

And the award for the most promising author went to **Simon Avery**. And why not! (Brilliant Barry Norman impression by the Balg... NOT!)

The results of the Balrog questionnaire were also very interesting – the average age of a Balrog reader is 17 and 5% of Balgers are female (Balgettes?). There's an even split between 464 and 6128 owners with quite a few adventurers without disk drives. (The Balg was surprised by this – I thought many more adventurers would have disk drives so that they could play the various Infocom, Magnetic Scrolls and PAW games).

Nearly all of you gave the Balrog column a good mark out of ten (it averaged out to about 8.5) and most peoples favourite section was the cluepot, with the GAC Clinic and Lords & Ladies being the least popular (although this was often a matter of taste – some people gave marks of 10 for Lords & Ladies and others gave it 0). Suggestions ranged from the silly ("Why don't you become a vegetarian and stop eating all those hobbits?") to more constructive comments which have all been eaten (but in a very intellectual kind of way).

Finally, as promised, two lucky readers won a game for their troubles of sending in the questionnaire. Well done to **Marc Curtis** of Liverpool and **Graham Booth** of Tadcaster.

If you have anything to say about an adventure game or the adventure scene in general then write to the Balrog at the usual address. Sorry but the Balrog cannot reply personally – I have enough on my plate trying to control all the orcs that live with me!

GAC Programming Clinic

This month readers have sent hints on how to get the most out of *GAC*...

Dear Balg,

I overcame one little difficulty in a way other users may find helpful. Unless you are extremely well organised, it can be a pain remembering the next number to use for your verbs, nouns and adverbs. I always have one of each called 'AA' carrying the highest number.

So, when I need a new verb, the screen displays all my verbs in alphabetical order with AA sitting at the top (naturally!) showing the next number. If it were, say, 47 and I needed a new verb, Twist, I can immediately delete 47, enter 47 Twist and 48 AA.
Ray Bryan

Dear Balrog,

Does anyone else know about the ADVINMAN.ADV file that follows QS.ADV on the covertape? It is an amusing little adventure, and it is very helpful to be able to examine the GAC conditions used in it and see how they work.
C Hetterington

Multipart adventures

Although it is not possible to link various parts of a game together so you can carry through objects, there is another way to make multi part adventures – simply at the end of the first part give the player a password for the second part and then at the start of Part Two, make the start location have the description 'from Part One...' (making sure you have no exits from this location. Then just create a condition so that when the password is typed the player is transported to Part Two proper. However you won't be able to take objects across from Part One – you have to try and make Part One end with the player carrying either no objects or a few objects which you can predict (so at the end of Part One you could attack the player muggers who steal all his objects etc).

Contacting the Balrog

To communicate the Balg, write to him at Amstrad Action, Future Publishing, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

Letters

Dear Balrog,

I am conducting market research into the demand for Adventure Software on the Amstrad (tape/disk) as I am thinking of starting up an adventure software house to try and revive some of the old flare for the games.

Is it possible to print this plea for help and ask everyone that's interested to write to me.
Iain Quigley, 14 Bute Court, Greenock, Inverclyde, Strathclyde, Scotland PA16 7AG

Good luck Iain and keep me up to date if anything comes of your idea! **The Balg.**
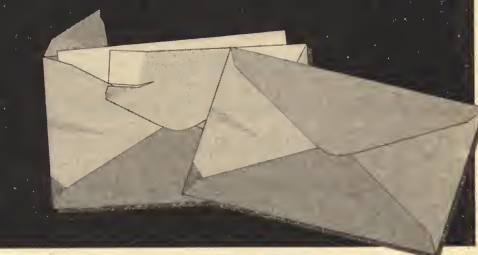
Dear Balrog

What is your favourite Level 9 game?
Robert Melody, Purley

Probably Worm in Paradise *– the game is massive and has some very tricky puzzles. Thanks for the letter and GAC hints, Robert. Unfortunately I can't print them as they came from another magazine.* **The Balg.**

Dear Balrog,

I was thinking of buying *Bloodwych* as I have greatly enjoyed playing *Bard's Tale*. I was wondering if it was worth getting, how difficult it was and where on Earth to get it! I'm also looking for the old RPG *Rings of Darkness*.
Tom Ford, 5 Sheperds Way, Harpenden, Herts AL5 3HF

Bloodwych *is well worth getting – however you may have difficulty finding it now. If anyone wants to sell their copy then get in contact with Tom.* Rings of Darkness *is now pretty ancient and could be very difficult to get hold of. Even if you do manage to you'll probably only get it on the Fourmost Adventures compilation. Again if any readers can help then they should get in touch.* **The Balg.**

Balrog's Cluepot

Cluepot

This month's honeypot of clues comes to you courtesy of the following do-gooders... Thomas Christie of Grangemouth, Richard Jamieson of Aberlour, Katharyne Allen of Guernsey, Dominic Corby of Chelmsford and Robert Smith of Gwynedd.

Case of the Mixed-up Shymer

● Examine garden display for pack of seeds.
● Give them to Mary, Mary, quite contrary to complete the first puzzle and get gloves.
● Put all in briefcase, find tramp in park and attack him, you will now be taken to hospital.
● Wait until the nurse goes, don't get watch.
● Get up. Get cases and papers. Get up.
● Put briefcase on empty bed, south, south, open locker, get stethoscope and clothes, north, east, put all but papers in pillowcase, wait for second footsteps outside, wait, west, west, wear bandage, lie on bed, wait, wait. You are now in the ambulance.
● Wear stethoscope and wait until you are dropped off.

Erik the Viking

● Blow the horn to summon your friends.
● Type pull boat in the boathouse.
● Don't drink wine offered by enchantress.
● When you meet Dragon of the north sea, send Erik up mast and up on to dragon's nose. Dragon will sneeze and blow you and the boat away. To avoid this, block his nostrils with the bedding from the great hall.

Microman

● Get lighter, examine car, climb seat belt, wind handle and jump to escape the car.

Mordon's Quest

This one's especially for Rix.
● Make a blowpipe to despatch the pygmy and then use the pygmy to get passed the plant.
● Lay down the blanket over the quick sand to walk over it safely.

Rigel's Revenge – Part 2

● To get passed the checkpoint: From start: Ex2, wait until you hear marching to east, E, N, E, get rifle, examine seat, get documents, W, S, W, wait again until you hear marching to the east, E, Sx2, Ex4, S, E, dig and get light guide.

Seabase Delta

Another one for Rix!
● Enter car, fasten seat-belt and insert card in slot to get car in station to move (the card is obtained from the dead body).

Smashed

Robert Smith! This one's just what you need.
● Inject Clingon with anaesthetic.
● Get cat and then enter chopper, switch on then pull joystick to get the key.
● Inject Crank with sodium pentathol.
● Get Clingon's dress.
● Hypnotise crank with Padre's book and give him the dress.
● Drill pills and string them with catgut to make fake pearls.

Lords & Ladies of Adventure

I always have to tell any possible newcomers out there how this bit works, so if you've heard it before, skip to the start of the list! For you newies, this is how this section can help you...There are a number of CPC adventurers who are willing to share their knowledge with you. If you have a problem with any of the following games, simply drop a line to the Lord or Lady who's got the solution. Enclose a sae, and remember to keep your needs as simple as possible. Complete solutions are out - these kind volunteers have their lives to be getting on with!

Adventure Quest ● Dungeon Adventure ● Gnome Ranger ● Imagination ● Knight Orc ● Kobyashi Naru ● Jewels of Babylon ● Lancelot ● Lords of Time ● Mystery of Indus Valley ● Price of Magik ● Redmoon ● Return to Eden ● Shadows of Mordor ● Snowball ● Souls of Darkon ● Venom.
Wendy Watters, 82 Booth Road, Stacksteads, Bacup, Lancashire OL13 OSF. Tel: (0706) 877518

Classic Adventure, Fantasia Diamond, Hobbit, Hollywood Hijinx ● Inca Curse ● Mountains of Ket ● Planet of Death ● Sorceror.
Dave 'Flossie' Havard, 21 Belvoir Close, Fareham, Hants PO16 OPJ

Forest at World's End ● Jewels of Babylon ● Seabase Delta.
James Mackle, 45 Kenure Park, Rush, Co Dublin, Ireland

Bard's Tale ● Hitchhiker's Guide ● Laser Squad ● Lord of the Rings ● Lords of Chaos ● Lurking Horror ● Price of Magic ● Quill (+Illustrator) ● Scapeghost.
Simon Netherwood, 36 Toothill Bank, Rastrick, Brighouse, West Yorkshire HD6 3EZ. Tel: (0484) 719326 5-9pm weekdays, 12-11pm weekends

Andy Capp ● Price of Magic.
The Kenderian, 475 Westhorne Ave, Eltham, London SE9 5LR

Jewels of Babylon
Chris "The Barbarian" Gore, 22 St. Anthony's Pk., Mallow, Co. Cork, Ireland

Help!

Stuck in an adventure? Or desperately trying to find one – the helpline it the place for you! Just send a postcard to Balrog's Helpline at the usual Balrog address.

● Patrick Dyson from Shipley wants to know how do you glue the map and open the safe in Subsunk – can anyone help?
● Wanted: *Genesis* instruction booklet and hints and tips for *Moonmist, Lancelot* and *Slaine*.
Dominic Corby, 62 Roxwell Road, Chelmsford, Essex CM1 2ND. Tel: (0245) 353718
● Mark Hudd is stuck on Level 6 of *Bloodwych* – does anyone know how to get past the green pads? He also wants to know what the various wands and rings do.
2 Bankside, Staple Hill, Bristol, BS16 5LQ
● Philip Carver is stuck in no less than three games. He wants to know how to stay in the kitchen in the *Famous Five*. How to move the lift in *The Pawn* and, finally, how to persuade the sessiones to retreat at Tintagel in *Lancelot*.
20 Pirie Road, West Bergholt, Essex, CO6 3TA. Tel: (0206) 241181

Technical Forum

This month RICHARD FAIRHURST answers loads of your letters. If you have a pressing technical query then just write it down and send it off to Technical Forum, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW. We'll try and help. Now let's make a start on those letters...

SCROLL OF WISDOM

I am trying to make a game, but have a major problem. Is there any way, in BASIC, that you can make the screen scroll from right to left (as in *R-Type*, *Robocop* etc) instead of bottom to top?
Bruce Dunbar
Tyne and Wear

No problem at all. Type in this listing...

```
10 MEMORY &9FFF: FOR n=&A000 TO &A02E
20 READ a$: POKE n,VAL("&"+a$)
30 NEXT n: CALL &A000
40 DATA 21,09,A0,01,0D,A0,C3,D1,BC,00,00,00
50 DATA 00,15,A0,C3,1F,A0,C3,27,A0,52,49,47
60 DATA 48,D4,4C,45,46,D4,00,CD,0B,BC,2B,2B
70 DATA C3,05,BC,CD,0B,BC,23,23,C3,05,BC
```

This sets up two new commands: IRIGHT scrolls the screen right, and ILEFT scrolls it left. Like all RSX programs, you should only RUN this program once after every reset. **AA**

DOWN UNDER

1. In Australia, there is hardly anything for the CPC, except Amstrad Action! How is it possible to purchase the latest CPC software?
2. I use *Stop Press* on my 6128 and the printing is incredibly slow, because it uses only two pins. Could I get a program which increases the number of pins and the speed?
3. I can format and read sectors with a length of six, but is it possible to write to this format?
Matthew Brown
Australia

1. Most of the mail-order companies which advertise in AA will be happy to send software overseas, for an additional postage charge. Write to them with an International Reply Coupon for details.
2. X-Press, by Medway/King, is one of the best programs that will deal with your specific problem. Unfortunately, it's not being advertised any more, but placing a Wanted advert in the Small Ads section in AA might help.
Alternatively, a Polish PD program prints Stop Press pictures quickly – try your friendly local PD library. (That's if you've got one. If not, try a British one.)
3. Not really. It is possible to write a small portion of data to this format, but not the full 8K: this means that a CPC cannot copy such sectors, a fact used by many disk protection systems. However, an Australian boffin has reputedly come up with a hardware modification for your CPC which lets you do this. More details when we get them. **AA**

CANON LAW

I am writing to enquire about the Canon bubble-jet printer. I have heard that it can emulate an Epson nine-pin dot-matrix printer. Would this printer be compatible with my CPC 464 (upgraded to a 6128)?
A. Baker
Northampton

The Canon bubble-jets are increasingly popular these days, and no wonder: the output quality is excellent. Make sure that you buy a BJ-10ex, rather than a BJ-10e. The 'ex' model is the one which emulates an Epson 9-pin, which most CPC programs support. You'll need a CPC printer cable, too: O J Software can sell you one for £8.95 (0257 421915). **AA**

SIZING THINGS UP

Please help: is it possible for the length of a file to be recorded in a variable?
Tom Ford
Harpenden

Enter this listing and RUN it:

```
10 MEMORY &9FFF: FOR n=&A000 TO &A021
20 READ a$: POKE n,VAL("&"+a$)
30 NEXT n: CALL &A000
40 DATA DD,6E,00,DD,66,01,46,23,5E,23,56,EB
50 DATA 11,00,C0,DD,E5,CD,77,BC,DD,E1,DD,6E
60 DATA 02,DD,66,03,71,23,70,C3,7D,BC
```

Once RUN, you can get the length of a file (in bytes) into a variable as follows:

```
variable%=0: a$="filename": CALL
&8000,@variable%,@a$
```

That should do the trick! **AA**

Multiface Questions

This month AA is going overboard with tips for Romantic Robot's little black box. Here are some of the questions you've sent us about it...

ANCIENT AND MODERN

I have recently purchased a second-hand Multiface 2. When I first attempted to use it, the game I tried to load (*Rainbow Islands* on disk) did not load. I read in AA that it is possible to hide the Multiface by pressing the Stop button then R. However, this did not work. In fact, only a small selection of my tape games loaded succesfully. Is there a way of hiding it?
Matthew Boulton
Kent

Rainbow Islands – if it doesn't load, what's wrong?

Older Multifaces, unfortunately, don't have the facility to be hidden – this was introduced after software houses got wise to the device and started making games crash if a Multiface was detected. As you bought yours second-hand, it seems that you have one of these! The best suggestion is to phone the manufacturers, Romantic Robot (081 200 8870) and ask them if they could upgrade your Multiface to the latest version. **AA**

PLUS PROBLEMS

I have recently attached a Multiface 2 to my 464 Plus. Everything works well until I try to hide the Multiface by selecting Return from the Multiface's menu: anything I type in, I get the message "Press PLAY then any key" and if I try and press ESCape, the disc drive I have attached starts. The only way I can stop this is by resetting my computer. Please help me, or I can't transfer many of my tape games to disk. Thanks.
Bruce West
March

Are you using the special CPC Plus version of the Multiface? A slightly different model is needed for correct operation on 464 Plus and 6128 Plus machines. If you bought the Multiface second-hand, without realising that it was a CPC version, this might explain why it's not working. Again, a phone call to Romantic Robot (081 200 8870) should sort things out. If you are using the Plus version in conjunction with a WAVE widget, it may be a case of a dirty expansion port somewhere along the line. Find an ink rubber (or even better, a Peco track rubber from a model railways shop), and clean all the expansion port connections with it. If you still have no luck, return it to Romantic Robot. **AA**

ROBBING THE BANK

I find the Multiface's toolkit brilliant for altering the contents of memory, hacking games, etc. But how do I get to fiddle about with the extra memory of my 6128? The manual says something about pressing 'S', but I don't understand what it means: all that happens when I press it is that a question mark appears and I can't type anything. Please help me!
Robert Ham
Edinburgh

When you press S, the Multiface wants to know the bank-switching code (from 0 to 7) to use. This number determines whereabouts in memory the extra 64K is switched in.
The easiest way to access extra memory is to do the following: if you press S followed by 2, then whatever you do will alter the extra memory instead of the first 64K. (This is very useful for altering the second program if you're using Flik, from last month's covertape!) Pressing S followed by 0 brings back the first 64K. Unfortunately, the Multiface can't actually alter memory in 256K RAM packs above the first 64K! **AA**

TOP TIPS

This is what Apple File Exchange looks like. It is extremely useful.

MACCPC

In Reaction (AA89) you printed a letter from a reader offering to send people details of how to transfer files from a CPC to an Apple Mac. Unfortunately you forgot his address, but it's easy anyway. Simply copy your files to a PC format 3.5" disk (using 2-in-1), and read this disk on the Mac using Apple File Exchange (which should come free with your Mac). If you have an old Mac without an Apple SuperDrive installed, you need to buy a SuperDrive for it.
I use this regularly for copying files between *Protext* on my 6128 and my school's Mac Classic II – as long as they are saved in ASCII format, MacWrite II can load them with absolutely no problem.
Matthew Khan
Powys

USER-FRIENDLY

I have read a lot of tips that say that you can change the user area to anything from 0 to 255 (with 229 being the erased files area) by simply poking this number into &A701.
Well, this worked on my 6128 until I bought a second ROMBO and fitted some ROMs (like *Protext*) in slots from 8 up: from then on it did nothing. However, I have come up with a POKE that works on all CPC setups. Type this line:

```
POKE PEEK(&BE7D)+256*PEEK(&BE7E)+1,user
number
```

Or, if you remove the '+1' and place 0 or 1 after the comma, you can select a disk drive without the usual whirring!
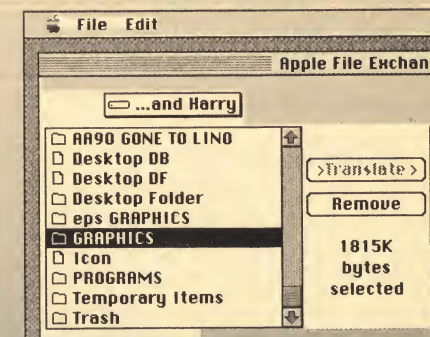**Chris Jones**
Aldershot

Stars and stripes – easy huh?

STARS AND STRIPES

I've discovered a great tip to produce stripey writing on the CPC's screen (I use a 664). Simply POKE &B72F with a number between 0 and 255: change the number for different effects (I find 60 gives a good stripe effect in MODE 1). Or, to change the background, POKE &B730 instead. Smart eh?
Don Tucker
Llangollen

The same addresses should work on the 6128. On the 464, try &B28F (for PEN) and &B290 (for PAPER). **AA**

PARLEZ-VOUS PROTEXT?

In Technical Forum (AA85) Alex Williamson described how to get accents for European languages for those sending letters as BASIC programs. I think I have an even better solution: just use *Protext*. It gives you a number of commands which set up the character set for foreign languages, such as French, German and Italian.
Even better, when you quit out of Protext, the letters stay the same! This means that, if you have *Promerge Plus*, you could have IP,"FRENCH" as a line in your BASIC program, which would redefine the characters and let you use them in your program. Of course, this is of absolutely no use if your pen-pal doesn't have *Promerge Plus* and *Protext* too. Still, it might come in handy!
John Waite
Woolwich

MOVIN' ON UP

1. Will the 256K upgrade work on the CPC 464?
2. I am thinking of getting an EPROM programmer: do you think it is the best for writing a program?
3. I am hoping to upgrade my CPC 464 to 6128 configuration: how could my 464 match the 6128?
4. What does the MP1-F do for the 464?
James Henry
Colchester

1. Yes, although remember that not many programs can use the extra memory. To use it in your own programs, you'll need to use the supplied software (if you don't have a disk drive, make sure that it comes on tape!).
2. Only if you want to write machine code programs on ROM, and even then, you'll need a RAM-ROM (Avatar, 0442 251705) to test them. If you don't already have a disk drive, this is the most useful addition. For the budding machine code programmer, a ROM-board, Protext and Maxam 1.5 on ROM are recommended.
3. You'll need a disk drive (either an Amstrad DDI-1, or Siren's 3.5" equivalent – 061 724 7572) and a RAM expansion (64K or 256K). If you really want to go the whole hog, you can buy a 6128 ROM, to give you the new 6128 commands such as FILL (WAVE, 0229 870000). However, this isn't usually necessary for running 128K commercial programs, and fitting can be very difficult on some 464s.
4. The MP1-F lets you display the output from

your CPC on any TV equipped with a SCART socket (in general, only present on more expensive models). The quality isn't too amazing: Campursoft's Videomaster (041 554 4735) gives better quality results. **AA**

PRINTS CHARMING

I have recently obtained a Citizen 120D printer for use with my son's 464 Plus. Unfortunately, being somewhere in the stone age as far as computers are concerned, I am unable to make it print any text from the screen. A friend tells me I need a print driver. Could you point me in the right direction?

Secondly, could you please recommend an effective but relatively simple graphics package for my son's use?
T.E. Sumner
Plymouth

Oh dear, your friend is leading you astray! All you need to do to print a line of text is use the command PRINT#8. For example, to print "The ultimate CPC peripheral", just type:

```
PRINT#8,"The ultimate CPC peripheral"
```

You don't need a print driver at all. As to your second question, the best art package that works on a 64K machine is the PD program GPaint. A copy was given away on the covertape with AA – our back issues department can send you a copy for £2.50. **AA**

AAS EYE-STRAIN

I find that most of the menus on Advanced OCP Art Studio are unreadable. Black and dark red bars can be seen, but no letters!

Recently my seven-year-old grand-daughter came across the disk and tried it out – with no

OH CRIKEY, HE'S BACK

Just when you thought it was safe to turn on your CPC again, our intrepid techie expert Mr Fairhurst decides to increase the suffering of us all. Fade to a beach. Someone who bears a remarkable resemblance to an ageing television personality ambles along picking up tennis balls and bottle tops. The cold, salty wind breezes through his hair.

"Doctor?" questioned Richard.

"Is that you, student?"

"Yes, doctor. We need your guidance once more. Evil lords have taken over the CPC as we know it. There's a software cartel started, and Simon Forrester has

Advanced OCP Art Studio – it helps if you can see what's happening on screen.

success. However, leaving her persevering with it, suddenly the 'Misc' menu appeared in black-and-white – as did all the others. Unfortunately, after a few shape trials the menus reverted to

been linked with the Brinks-Matt robbery and is due for the chair at seven!"

"And you think you can get me back by just asking?" asks the wizened seer of the EEC 3" disk mountain.

"AA are offering a fairly healthy wodge of cash if you'll do it," answers the ever quick Richie.

"How much?"

"A lot"

"Right. Stand aside all you fascist programmers and money-minded sales people. I'm coming back. You can't get away with this any longer!... Wheeze... You won't get away with abysmal resolution and game concepts any longer. I can see the real situation. If you want to stick around, you'd better stand up to the almighty power of THE FEGG!"

Oh brollies... We're sorry...

their original condition. Have I by any chance got a copy with a bug in it?
John Brownlee
Hertfordshire

The reason that the menus suddenly became readable is because your grand-daughter selected the 'Screen mode 2' option: this selects the two-colour mode, and so only the first two standard colours are used.

Advanced OCP Art Studio can be very difficult to see on a green screen (let alone understand!), but on a colour monitor it should be no trouble. Have you tried adjusting the brightness control? Failing that, select the 'Palette' option, and you will be able to change the colours (look in the manual for details) to something just a little bit more readable! **AA**

DOS UPDATE

Last month, AA featured the ultimate guide to disk operating systems. Well, almost: since then, we've heard of major improvements to the two top-rated DOSses, so we thought a brief second look was in order.

ROMDOS XL The souped-up version of ROMDOS from Siren Software, has been completely debugged since the version we

The software may be extremely smart, but it's useless without a 3.5" disk drive.

reviewed. What's more, it can now automatically detect between formats in drive B. There is no longer any need to type IDOSOFF if you want to read data or CP/M format disks. This is great, because we reckoned this was the major minus point against the program.

One smart new feature added to ROMDOS XL is a sector editor, like the DMON utility which we gave away on the covertape. If you play around with disks a lot, this is a great addition and unique amongst DOSses.

S-DOS This too, can now automatically sense what format the disk you have placed in the drive is. Unlike ROMDOS XL, though, it does this in both disk drives – great for ABBA switch owners or people with a 3.5" first disk drive (e.g. 464 Plus owners). It can also do this under both versions of CP/M (2.2 and Plus), a boon for all you 'A>' prompt junkies.

In addition, two more formats are supported by S-DOS: the first is a 3" disk format which gives you an extra 27K per disk – the same format as printed in an AA type-in (Ultraform) a while ago, except that S-DOS detects it automatically. For 3.5" disks, format 5 from MS800 (the most popular MS800 format) is included: if you have a collection of MS800

disks, this makes S-DOS an ideal upgrade.

After last month's round-up, ROMDOS XL and S-DOS were way in front of the competition: these improvements have pushed them further ahead. For devotees of the original ROMDOS, the improvements make the new version a very tempting proposition: if you have a large stack of ROMDOS disks, and want the convenience of built-in utilities, such as the rather spanky new sector editor, it's definitely recommended. To access 800K per disk without using a side switch, there is no other choice.

S-DOS narrowly retains the gold, though: it lets you use large formats in drive A, it's as happy under CP/M Plus as AMSDOS, the utilities are generally more powerful, and it's compatible with more programs. It's a close-run contest, but S-DOS is still the front-runner amongst DOSses.

ROMDOS XL 87%
£19.99 (ROM), £29.99 (cartridge)
Siren Software, (061) 724 7572

S-DOS 89%
£12.95 (ROM)
STS Software, (081) 317 3536

Back Issues

Sold out! Issues 1-54, 56-65 ● Still available! Issues 55, 66, 68, 71-81

Issue 82; On the tape! *PowerPage* and playable *Lemmings* demo. Inside: reviews of *Lemmings* and *The Addams Family*. Plus! Buyers' Guide to art packages.

Issue 83; A packed tape with *Tetris* game, music composer and a full game - *Defenders Of The Earth*. Inside: CPC bargains in France!

Issue 84; On the tape: *Famous Five*, the complete game. Inside! Review of *Hideous*, Virtual Reality special, the best 3D CPC games and colour printing special.

Issue 85; A look at music-making on the Amstrad, a WIMP interface and a *PowerPage* tutorial. On t'tape, two full games - *On The Run* and *Link*.

Issue 86; Feature on Alternative's kid's TV licences plus review of the *Picasso* art package. On the tape - *Glider Rider* (full game), MIDI demo and three utilities.

Issue 87; Inside - the complete history od *Dizzy* and review of the Amstrad NC100 notepad. And! *Football Manager 3* reviewed. Full game of *Nexor* on the tape.

Issue 88; Two complete games on the tape - *Tankbusters* and *Penguins*. Inside, *Videomaster*, *Robin Hood: Legend Quest* and *Crystal Kingdom Dzzy* reviewed.

Issue 89; Inside - Buyers' Guide to disk drives, a look at CPC-stretching demos and *Crazy Cars 3* reviewed. Plus! *Wriggler* and three great utilities on the covertape.

Amstrad Action Back Issues

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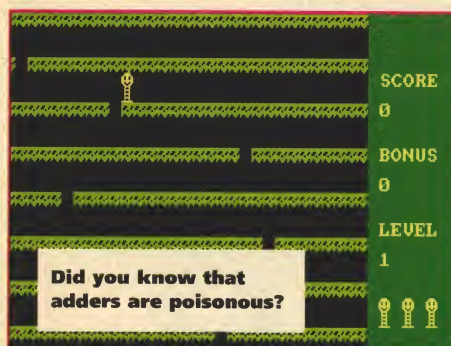
Fancy a holiday?

WIN A WEEKEND IN ROBIN HOOD COUNTRY! PLUS FIVE COPIES OF ROBIN HOOD: LEGEND QUEST!

Nottingham Castle

Okay, hands up who's seen Robin Hood: Prince of Thieves? It's good, isn't it? Especially the bit where our Kevin swings through the burning trees and jumps on the baddies. That's all supposed to take place in Sherwood Forest, the very same forest that you could be wandering around if you win this rather ace competition.

Simply by filling in that coupon at the bottom of the page, a family of four are in with a winning chance to be taken on a guided tour of Nottingham, taking in the castle, the museums, the rather nice shops and the Tales of Robin Hood. The latter is a sort of interactive exhibition with all the smells, sights and sounds of mediaeval England. But that's not all! You'll also spend the weekend in one of Nottingham's many fine hotels, with breakfast and dinner thrown in. (Well, maybe more 'served' than 'thrown', actually!) And! You'll be taken around Sherwood forest itself. As an extra special treat you may get to meet the Sherrif of Nottingham. We can't promise anything cos he goes away a lot, but if he's in town we're sure he'll be dying to meet you! You don't go away empty-handed either, the City of Nottingham also mentioned some free gifts. Yum!

As runners-up prizes, we've got five copies of the Codies' *Robin Hood: Legend Quest*. A very smart prize indeed!

The Rules

★ Employees of Future Publishing, CodeMasters and The City of Nottingham Council are barred from entering this compo.

★ All entries must be received by the first of April, 1993. Any entries that reach us after that date will, I'm afraid, be chucked in the bin. (That's after we take the stamps off for charidee.)

★ Multiple entries are very naughty and not allowed.

★ The Editor's word is absolutely final.

Sherwood Forest - home of outlaws and also the place where Robin and Marian were married.

To be in with a chance of winning this fabulous family weekend away, all you have to do is answer the following question...

★ **Which of the following is one of Nottingham's main roads?**
   a) Friar Tuck Avenue
   b) Maid Marian Way
   c) Robin Hood Place

Write the answer on the coupon, stick it on to the back of a postcard or envelope and send it off to *"I'm With The Bloke In The Green Jerkin"*, Compo Amstrad Action, 29 Monmouth Street, Bath, Avon BA1 2DL. All entries must be on the Ed's desk by the first of April, 1993.

Everywhere in Nottingham, you'll find reminders of Robin Hood.

Robin Hood Compo

To: I'm With The Bloke In The Green Jerkin, Competitions, Amstrad Action, 29 Monmouth Street, Bath, Avon BA1 2DL

The answer is ....

My name is ....

My address is ....

....

....

.... Postcode ....

Public Image

TIM BLACKBOND wants it to be known that he lives in Barnsley and eats coal. We don't believe him, but here's his PD news anyway...

Adder
By Simon Walker
Available from PD Fun

This is a simple game based on the concept of an ever-growing snake. Hands up those who have heard of it before! The object of this game is to guide your snake around a screen (avoiding the walls), eating the snakey staple-diet – numbers! Each number appears on the screen one at a time and slowly counts down until it reaches zero when... it disappears. If you get to it fast enough, the appropriate number of segments will be added to your body. It starts off easy enough for a two year old to play it, but as you get better the game gets harder as it's difficult to move around with your back legs three miles away. *(But snakes haven't got legs. Ed)*

The graphics are simple, but then aren't all really lasting games simple in the visual department? Doubtless, this will keep you going for many moons to come.

78%

Did you know that adders are poisonous?

Spring On A Thing
By Frederick Nordakke

Not to be confused with the Gremlin game of almost the same name (*Thing On A Spring*), *Spring* is another one of those simple concept games to while away Sunday afternoons.

Spring has to get to the top of various multi-platform screens by leaping through the gaps that randomly appear on each row. The gaps wait for a few seconds before being replaced by another hole somewhere else along the line. Sometimes it's possible to accidentally fall down a hole, in which case you'll have to climb back up again and waste valuable and limited time. Death awaits all those springs that are unfortunate enough to drop to the bottom row, so you'll have to be quick if you're to succeed.
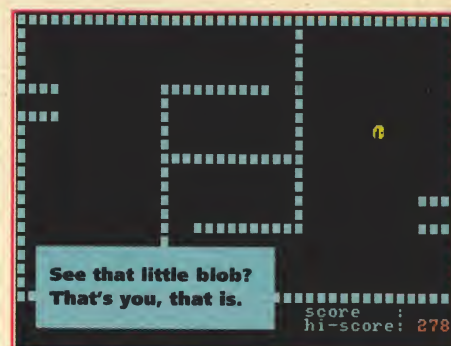
Once you've passed the first level, you're treated to more of the same – except that arrows shoot across random rows, giving you something else to worry about. And that's about it. *Spring* will bring an hour or so of pleasure for the aformentioned Sunday afternoon, but it gets too repetitive for long-term enjoyment.

57%

See that little blob? That's you, that is.

Loose Talk

Amsof PD address presumed missing...
It's all very well to give a new library a huge plugging, but it all becomes so very, very pointless when the address is left out. *(Hear, hear! Ed)* This was exactly what happened in the case of Amsof PD last month. Just to set the record straight, here is that elusive address:
★ **Derek Hyland, Lyssanly, Cloyne, Middleton, Ireland**

Amstrad Users Unite
Apparently, the United Amstrad User Group has been running for several years, yet has been constantly ignored by that get who runs the AA Public Domain column. I'm sorry. Anyway, past offences aside, for a paltry £8 per year you get full membership including a bi-monthly fanzine, free Public Domain and a smashing postal-book lending service. Write for more information to:
★ **UAUG, c/o Tony Baker, 26 Uplands Cresent, Fareham, Hampshire PO16 7JY**

Alive and kicking updates
After the exclusive AA review of Lee Rouane's fanzine, improvements have been made on the presentation front. Now, a font is used that actually has a lower case! The latest issue has no less than thirty-six pages filled with cheats, reviews and even tape-to-disk information. All this for a mere £1.20. Write to:
★ **Lee Rouane, 3 Causeway House, Kelstedge, Chesterfield S45 0DW**

A short public announcement...
Artificial Intelligence issue eight was released just before Christmas 1992 and as a consequence of the usual poor postal service around this time of year, I have received a few letters from people saying that they have not received a copy. If you have ordered, yet still not seen issue eight of AI, please write and tell me at:
★ **19 Lee Street, Liversedge, West Yorkshire WF15 6DZ**
You'll get a replacement copy and I'll know who's just trying to get a free one.

Zap T' Balls: the untold story
There are a hell of a lot of angry people on the continent, particularly EGS after the game *Zap T' Balls* has been freely distributed around Britain. Well, apparently it isn't public domain. Far from it, in fact. The only public domain version of *Zap T' Balls* is the one that only has five levels and comes with a preview of the Advanced Edition. This only leaves the problem of what is to be done with the many libraries that have it within their catalogues. The best advice would be to remove it, quickly...

The mailbag

As the number of letters has dramatically picked up, I can't guarantee a personal answer, so don't waste a stamp by putting a sae in the envelope. Sorry an' all, but what can you do? Letters than cannot be answered in AA will almost certainly be in Artificial Intelligence!

NOWHERE TO ROAM
After reading a few issues of AA, various PD items have appealed to me. My problem is that I don't have the distributors' addresses. I would be grateful if you could send me some addresses, in particularly that of Robot PD as *Power Tetris* looked really radical. Could you possibly tell me how much *Power Tetris* is?
Gregory Birchall
Coventry

No addresses printed last month! See what lack of space does to a man (lobby your MP for more PD pages now!). If you'll care to look elsewhere about this page, you'll find a number of addresses that will come in useful.

Robot PD is temporarily closed for re-organisation, so orders will be ignored until he can clear the backlog. The price of Power Tetris varies from library to library. The cheapest library in Britain is Sheepsoft at a mere 20p per disk side. **AA**

CUE VIOLINS, CUE SIMON BATES AND GET THE HANKIES!
I have been a subscriber to AA since issue one and was very pleased when a PD spot started. However, since then I have encountered nothing but problems. I do realise that these things are not out to make a profit, but I do not mind paying more for a better service.

I spied the *Print Enhancer* review and sent two disks to Presto at thier new Neath address (which, I believe, has moved again). I got no answer. Also, I sent a letter to Dartsma asking for some of their clip art. I enclosed a sae and got no reply.

I think that all the PD libraries that are plugged in AA should carry some kind of guarrantee that they will return orders, instead of just leaving readers without their disks.
Dave Wilkins
Northampton

Actually, I'm the one who has to take the blame for the Presto delay. I was meant to send Matt Gullam a copy of Print Enhancer, but due to a sudden barrage of other things, his copy was delayed. You were not the only one to be kept waiting – I am sorry.

I must say that, in principle, I agree with you – PD librarians should send disks back as soon as possible. But remember that it is simply no more than a hobby to most, seeing as no money is made. **AA**

WATER, WATER EVERYWHERE!
I am a boating enthusiast (when I can get away from my 6128!) and would like to get hold of a navigation program similar to PC *Wayplanner*. Does such a package exist for my machine?
John Haas
Essex

I have no knowledge of a boating navigation program on the CPC whatsoever, especially public domain! If anybody else does, feel free to tell me about it. **AA**

Postbox
For those of you who are interested in getting hold of more PD, here a few addresses to write off to. I'll have more for you next month, but I seem to have run out of room already!

ADVENTURE PD Debby Howard, 10 Overton Road, Abbey Wood, London SE2 9SD
DARTSMA PD Adam Shade, 47 Kidd Place, Charlton, London SE7 8HF
DEMON PD David Long, 47 Hillton Avenue, Birmingham B28 OPE
DOMAIN PD Graeme Chesser, 44 Echline Grove, S Queensferry EH30 9RU
G.D. PD Dave & Ged Lawson, 49 Woodville, Barnstaple, N Devon EX31 2HL
WORLD PD E Williams, 111 Riverside Road, Orewa, New Zealand

Fanzine review extra!

If you run a fanzine, no doubt it could do with a good plugging, especially if it wasn't mentioned in the last fanzine round-up in Amstrad Action. Send me a copy and I'll return a sparkly copy of AI for your troubles and a review. You can't say fairer than that!

Eurostrad
Editor: La Redaction ■ Issue Two: £1 ■ UK: Malcolm Smith, 2 Baily Place, Moray, Scotland IV31 6RW ■ **France:** Thomas Fournerie, La Hemeliniere, 50450 Hambye ■ **Espana:** Manuel Laorden Mas, Valldemosa 64, Entlo 2, 08016 Barcelona

Eurostrad claims to be the first European fanzine for the Amstrad CPC. Well, that's what it says on the cover so it must be true. It's a twelve-page A4 fanzine, bound together with one staple in the top-left-hand corner of the page and is written in no less than three languages, these being English, French and Spanish. There should be no disappointments here as I'll bet every reader has a firm grasp on at least one of these dialects.

So what's actually in the mag, then? Firstly, there's a British fanzine round-up of which some rag with the name Artificial Intelligence comes out on top of three others with a spanking nine point five out of ten! I think I'll be buying a copy of that fanzine very soon indeed! *(That's enough AI. Ed)*

Quite a lot of it is actually in English, and there's a round-up of several British PD libraries, as well as a brief look at French fanzines and a short article on piracy in the United Kingdom. Unfortunately, no matter how interested you are on the subject, you'll be none the wiser if you can't speak French.

The presentation is good, although in some areas a font is used that is both small and completely upper case. True, if you want a full-English read, this may not be the one for you but is still a very interesting read. It even has a Smurf on the cover!

78%

Amstrad Express
Editor: Salman Sandhu ■ Issue One: 50p + disk ■ Salman A Sandhu, 17 Cromer Road, London SW17 9JN

Take a look at any French or German disk-fanzine and you'll be astounded at the amazing mix of both graphics and music. Now, stop that and move to Britian. Firstly we have CPC Domain which, and let's be fair, is an example of what not to do with a disk fanzine. Amstrad Express, I'm sorry to say, takes this concept one step further.

The entire magazine spans two sides of a disk. The contents are little more than uncompressed screen files (some of which are ripped straight from computer games) and ASCII text files, bound together with a simple menu system. Oh well, the presentation would have anybody vomiting in loathing and disgust, but it's the content that counts. Isn't it?

Unfortunately, this bit's pretty much the same. There's also some POKEs and keypress cheats (the *TMH Turtles* POKE I'm sure used to be in AA) and an adverts section which is a collection of badly drawn screens for WAVE.

There is a good point to the magazine, and you'll be glad to know it's a great one: The Special Offers section. This includes a wide range of software and hardware going at low prices. For example, a GX4000 can be snapped up for £25.

I suppose for 50p and a disk, it isn't too much to ask but when the ASCII reader system does little more than list a file, you might as well import the text into PowerPage 128 or a less-effective DTP.

25%

Next month
Okay, so Rogues Gallery has been left out again! WHAT?! So have the charts! It's a disgrace! But don't worry yourselves, they'll both return next month along with more letters and reviews of two more fanzines, namely the United Amstrad User Group magazine and Amstrad Fun.

In the meantime you can write to me at **Public Image, Amstrad Action, 30 Monmouth Street, Beauford Court, Bath, Avon BA1 2BW.** Thank you for listening, good night.

Type-ins

This month, live from Bath, we have four type-ins. If yours are half as good then send them to Type-ins, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW. If your routine is up their with the best, you could earn yourself twenty pounds!

ESTI-DIY

ESTI-DIY by A J Bishop of Daventry, Northants, enables committed DIYers to work out, accurately, the amount of materials they'll need to complete a job. The program is menu-driven and, by prompting for the areas involved, computes the number of bricks or what have you necessary for a project with dazzling speed and accuracy. Interesting, and very useful.

```
FAPG 5 REM..BY.T.BISHOP....
BAHP 10 MODE.1
FALC 20 REM.esti.d.i.y.
BAFG 30 CLS
IADA 40 LOCATE.15,3:PRINT.."ESTI.D.I.Y"
IAMM 50 LOCATE.15,9:PRINT."A...BRICKWORK"
IAGA 60 LOCATE.15,12:PRINT."B...CEMENT"
IACK 70 LOCATE.15,15:PRINT."C...CONCRETE"
IAMP 80 LOCATE.15,18:PRINT."D...WALLPAPER"
GAGJ 90 A$=INKEY$:IF.a$="".THEN.90
IAMA 100 IF.A$="A".OR.A$="a".THEN.GOTO.140
IACB 110 IF.A$="B".OR.A$="b".THEN.GOTO.260
IAEB 120 IF.A$="C".OR.A$="c".THEN.GOTO.340
IAKB 130 IF.A$="D".OR.A$="d".THEN.GOTO.460
BAHJ 140 CLS
GADO 150 PRINT.TAB(15)"BRICKWORK"
MAAN 160 LOCATE.4,6:INPUT."LENGTH.OF.WALL.IN.
    METRES";br
NAED 170 LOCATE.4,9:INPUT."HEIGHT.OF.WALL.IN.
    METRES";bri
EAMH 180 bric=(br*4.5)
GANK 190 brick=CINT(bri*13.3)
IACM 200 bricks=bric*brick/100*105
NAJP 210 LOCATE.4,12:PRINT."BRICKS.225x113x75
    .ALL.SIZES.IN.MM"
PABO 220 LOCATE.4,15:PRINT."BRICKS.REQUIRED..
    ........CINT(bricks)
MABG 230 LOCATE.4,24:PRINT."RETURN.TO.MAIN.ME
    NU.?.(Y/N)"
GAAN 240 A$=INKEY$:IF.a$="".THEN.240
KAAH 250 IF.A$="Y".OR.A$="y".THEN.GOTO.30.ELS
    E.END.
BAKJ 260 CLS
GADN 270 PRINT.TAB(15)"CEMENT.1:4"
LADG 275 LOCATE.4,6:INPUT."No.OF.BRICKS";bric
    ks
GAIL 290 cement=bricks/250
FAMM 300 sand=cement*0.2
OAEA 310 LOCATE.4,12:PRINT."SAND.REQ.IN.CUBIC
    .METRES.";sand
PAGE 320 LOCATE.4,15:PRINT."CEMENT.REQ.BAGS..
    ........"CINT(cement)
CAEK 330 GOTO.230
BAJJ 340 CLS
HALG 350 PRINT.TAB(15)"CONCRETE.1:6"
KALM 360 LOCATE.4,6:INPUT."LENGTH.IN.METRES";
    co
KALP 370 LOCATE.4,9:INPUT."WIDTH.IN.METRES";c
    on
```

Telephone Directory

£20 WINNER

Alasdair Gillies's program Telephone Directory is a basic (2K) but very usable repository for the telephone numbers of all your friends and relations. The program prompts for a name and, when you've entered it, fires the telephone number associated with that person right back at you. Phone numbers must be entered as data statements while you're typing in the program – although an input routine could easily be added to smooth the whole operation. All instructions necessary are contained within the program. Alasdair hails from Ardrossan, Ayrshire and has just made twenty quid!

```
CAKB 5 INK.1,24
CAKG 6 BORDER.6
KACK 10 DIM.NAME$(20),N$(20),T$(20),YN$(3),N2
    $(20),T2$(20)
BAJP 20 MODE.2
ABAN 30 LOCATE.25,1:PRINT."**.TELEPHONE.DIRECT
    ORY.BY.ALASDAIR.GILLIES**.
MAEG 40 LOCATE.25,2:PRINT."))TYPE.'?'.TO.EXIT.
    PROGRAM((
NABD 50 LOCATE.25,3:PRINT."PLEASE.ENTER.NAME";
    :INPUT.NAME$
EAMK 60 IF.NAME$="".THEN.20
FAND 70 IF.NAME$="?".THEN.300
GAND 80 IF.NAME$="LIST".THEN.500
IAHL 90 PRINT:PRINT:PRINT;"SEARCHING"
CAFN 100 RESTORE
DALL 110 FOR.N=1.TO.30
DAFA 120 READ.N$,T$
GAGL 130 IF.N$=NAME$.THEN.GOTO.250
HAFO 140 IF.N$="END".OR.T$="END".THEN.160
CADG 150 NEXT.N
MAHK 160 IF.N$()NAME$.THEN.PRINT.NAME$;"'S.NU
    MBER.IS.NOT"
LAKK 170 PRINT:PRINT."INCLUDED.IN.THIS.DIRECTO
    RY."
ABKI 200 LOCATE.25,15:PRINT."DO.YOU.REQUIRE.A.
    NOTHER.NUMBER":INPUT.YN$
LAMH 210 IF.YN$="".OR.YN$="Y".OR.YN$="YES".TH
    EN.GOTO.20
MAFG 220 IF.YN$()"".OR.YN$()"YES".OR.YN$()"Y"
    .THEN.GOTO.300
KAPD 250 PRINT.NAME$;"'S.NUMBER.IS.";T$:GOTO.
    200
BAFJ 300 CLS
CANN 310 INK.1,26,6
OBMP 320 PRINT."THEN.WHY.DON'T.YOU.GO.AND.SLI
    CE.YOUR.HEAD.OFF.WITH.AN.AXE.AND.BOIL.IT
    .IN.A.PRESSURE.COOKER.UNTIL.IT.EXPLODES!
    "
EABF 321 FOR.Q=100.TO.200
DALG 322 SOUND.1,Q,1
CAIG 323 NEXT.Q
DAIM 324 FOR.Q=1.TO.60
GANL 325 SOUND.1,RND(100),1,15,0,0,31
CALG 326 NEXT.Q
CAFK 330 GOTO.321
FADG 500 CLEAR:RESTORE.9000
LAAK 510 CLS:PRINT.TAB.(4)"**.TELEPHONE.DIREC
    TORY.**"
DAAM 520 FOR.N=1.TO.30
FAOP 530 IF.N=15.THEN.GOSUB.700
DAPG 540 READ.N$,T$
IANC 550 IF.N2$="END".OR.T2$="END"THEN.600
IADH 560 LOCATE.25,N+8:PRINT.N2$;".....-";T2$
CAJG 570 NEXT.N
EBCD 600 PRINT:PRINT:PRINT:PRINT"NO.MORE.NUMB
    ERS...WANT.TO.CONTINUE";:INPUT.YN$
CADK 610 GOTO.210
ABJI 700 PRINT:PRINT:PRINT:PRINT"WANT.TO.CONT
    INUE.LIST::INPUT.YN$
LAJG 710 IF.YN$="".OR.YN$="Y".OR.YN$="YES".THE
    N.RETURN
CAEH 720 GOTO.20
```

ProgLib - which disk?

Anyone who's been an Amstrad owner for some time will know that it's often difficult to keep track of the thousands of programs tucked away on disk and tape. Commercial titles, games and utilities typed in from Amstrad Action and other sources, public domain downloads – they all have to be stored somewhere and catalogued. And it's for the latter operation that *ProgLib* was created. Written by Chris Godfrey of Basingstoke, Hants, *ProgLib* is a menu-driven database which stores details and whereabouts of all your programs so that, to find one, all you have to do is enter its name and the computer coughs up the relevant info. A print routine means you can get a hard copy listing of your software at any time.

```
JAPK 10 ·DIM·name$(1000):DIM·author$(1000)···
IAKA 20 ·MODE·2:BORDER·0:INK·1,26:INK·0,0
JABM 30 ·PRINT"··············································PROGRA
        M·LIBRARY"
IALA 40 ·PRINT"··············································------
        ------"
FAAK 50 ·PRINT:PRINT:PRINT
GAIO 60 ·PRINT"1·····ENTER·LIST"·····
FAMC 70 ·PRINT"2·····LIST"·····
EAAI 80 ·PRINT"3·····BYE."
FAPP 90 ·PRINT"4·····SAVE·LIST"
GAJB 100·PRINT"5·····LOAD·LIST"
GACG 110·PRINT"6·····CLEAR·LIST"
GAIG 120·PRINT"7·····PRINT·LIST"
KAIE 130·INPUT"What·do·you·choose";as
JALE 140·ON·ms·GOSUB·180,280,370,450,530,610,
        660
KABE 150·LOCATE·7,25:PRINT"Press·any·key"
GAKO 160·IF·INKEY$=""·THEN·GOTO·160
CADH 170·GOTO·20
LANI 180·MODE:2:PRINT"······························
        ··········ENTER·NAMES"
IANK 190·PRINT"······························
        ···------·------"
FANM 200·PRINT:PRINT:PRINT
EAEH 210·FOR·x=1·TO·10000
MAII 220·INPUT·"Name·of·Game/Program";NAME$(X
        )·····
MAIK 230·INPUT·"Name·of·Publisher";author$(x)
HAED 240·IF·NAME$(X)=""·THEN·GOTO·260
BAGP 250·NEXT
HAHL 260·PRINT·"No·more·input."
CAJJ 270·RETURN
LAME 280·MODE:2:PRINT"······························
        ·······LIST·NAMES"
IABI 290·PRINT"······························
        ·············"
FAOM 300·PRINT:PRINT:PRINT
EAFC 310·FOR·X=1·TO·1000
HADD 320·IF·NAME$(X)=""·THEN·GOTO·350
MAEM 330·PRINT·NAMES(X);:PRINT·"·BY·";:PRINT·A
        UTHOR$(X)·····
BAGP 340·NEXT
IAEE 350·PRINT:PRINT·"LIST·FINISHED."
CAJJ 360·RETURN
LAAB 370·PRINT:INPUT"Are·you·sure·(Y/N)·";a$
IAPB 380·IF·UPPER$(a$)="N"·THEN·GOTO·440
XALC 390·IF·UPPER$(a$)="Y"·THEN·GOTO·400·ELSE·
        ·380
JAKA 400·PRINT:PRINT"Bye·then.":CLEAR
GAMJ 410·PRINT"press·a·key"
FAPI 420·IF·INKEY$=""·THEN·420
BABK 430·NEW
CAIJ 440·RETURN
CBPE 450·PRINT:PRINT:PRINT"·Insert·tape/disc·
        then·press·a·key"
FACG 460·OPENOUT"data"·····
EAME 470·FOR·x=1·TO·1000
JAJA 480·WRITE#9,name$(x),author$(x)
BAMP 490·NEXT
DADC 500·CLOSEOUT
GAEF 510·PRINT"data·saved"
CAHJ 520·RETURN
CBOK 530·PRINT:PRINT:PRINT"·Insert·tape/disc·
        then·press·a·key"···
EAAM 540·OPENIN"data"···
FALA 550·FOR·x=1·TO·1000·······
JANA 560·INPUT#9,name$(x),author$(x)
CALH 570·NEXT····
CAKM 580·CLOSEIN
GACL 590·PRINT"data·loaded"
CAGJ 600·RETURN
JAGK 610·PRINT:INPUT·"Are·you·sure";a$
IAJC 620·IF·UPPER$(a$)="Y"·THEN·GOTO·640
KANA 630·IF·UPPER$(a$)="N"·THEN·RETURN·ELSE·6
        20
CABC 640·CLEAR
BAAL 650·RUN
EANC 660·FOR·X=1·TO·1000
HAMO 670·IF·AUTHOR$(X)=""·THEN·GOTO·700
JAJO 680·PRINT#8,NAME$(X);:PRINT#8,AUTHOR$(X)
BAOP 690·NEXT
CAHJ 700·RETURN
```

Alpha Scroll

You've all seen those funky scrolling messages on computer screens in shop windows, estate and travel agents, railway stations and the like which display on an endless sideways scrolling loop information and advertising, right? Well now you too can create scrolling messages. Manchester boy David Hall's *Alpha Scroll* reads a previously saved text file (or enables you to enter one and save it) which it then scrolls smoothly right to left across the CPC's screen. Fun for all the family!

```
JAJM 10 ·'·**·ALPHA·SCROLL·**·By·David·Hall
JAAD 20 ·'·(C)·Mar·1990··········and·Andy·Hall
AAKK 30 ·'
KAPA 40 ·'·------·Amstrad·CPC·version·------
HANP 50 ·'·for·A.M.S.T.R.A.D··A.C.T.I.O.N·
AANK 60 ·'
FAHM 70 ·IF·HIMEM=9999·THEN·100
EAEH 80 ·SYMBOL·AFTER·31
DAGG 90 ·MEMORY·9999
CAPD 100·INK·0,0
CAGH 110·INK·1,14
CAKH 120·INK·2,16
CAHE 130·INK·3,2
CAIE 140·INK·4,1
CAME 150·INK·5,3
CAAF 160·INK·5,6
CACI 170·INK·6,15
CAFI 180·INK·7,16
CAII 190·INK·8,26
CAAM 200·BORDER·0
EAOA 210·store=10000
FABG 220·FOR·loop1=1·TO·46
CAHH 230·sum=0
GABA 240·READ·code$,total
HAPA 250·FOR·loop2=1·TO·24·STEP·2
KAPF 260·value=VAL("&"+MID$(code$,loop2,2))
GAOH 270·POKE·store,value
FAJO 280·sum=sum+value
FAOK 290·store=store+1
DAOP 300·NEXT·loop2
HAPB 310·IF·sum=total·THEN·340
LAPC 320·PRINT·"Error·in·line·";1120+loop1*10
BANI 330·END
EABA 340·NEXT·loop1
```

```
LAKM 380·LOCATE·4,12:PRINT·"ONE·INCH·=·0.025·
        OF·A·METRE"
MAJL 390·LOCATE·4,15:INPUT·"THICKNESS·IN·METE
        RS";conc
HANP 400·concr=co*conc*conc*0.15
GAEE 410·concre=concr*5.6
HAOB 420·concret=concre*5.6
OAFI 430·LOCATE·4,18:PRINT·"CEMENT·BAGS······
        ···········";concret
PALB 440·LOCATE·4,21:PRINT·"BALLAST·IN·CUBIC·
        METRES......";concre
CAHK 450·GOTO·230
BAMJ 460·CLS
GACO 470·PRINT·TAB(15)"WALLPAPER"
LAKJ 480·LOCATE·4,6:INPUT·"WALL·DROP·IN·METRE
        S";wd
NAOI 490·LOCATE·4,9:INPUT·"DIST·AROUND·ROOM·I
        N·METRES";dr
EAOA 500·pap=wd*dr
EAOD 510·pape=pap/5
MAKJ 520·LOCATE·4,12:PRINT"ROLLS·WALLPAPER·RE
        Q";pape
CAGK 530·GOTO·230
```

```
CAOC 350·MODE·1
BAPO 360·PEN·3
HAAG 370·PRINT·"·A·L·P·H·A··S·C·R·O·L·L"
CAIE 380·PRINT
BABP 390·PEN·2
MABI 400·PRINT·"Type·name·of·file·to·load·or"
NAOI 410·PRINT·"press·ENTER·to·create·a·messa
        ge"
CADE 420·PRINT
BALO 430·PEN·1
HAHE 440·LINE·INPUT·")....",lname$
GAFC 450·IF·lname$=""·THEN·480
FAKE 460·LOAD·lname$,12000
CACL 470·GOTO·950
BACK 480·x=1
BAEK 490·y=1
EACB 500·store=12000
CANC 510·MODE·2
BALO 520·PEN·1
NAEO 530·PRINT·"·ALPHA·SCROLL·by·David·Hall·-
        ·Please·";
OAHF 540·PRINT·"type·your·message··(·SPACE·LE
        FT·=·20000·)"
IABL 550·PRINT·"·=====·=======·-·(c)·Mar·1990"
FAGL 560·PRINT·STRING$(80,"*")
DAIF 570·LOCATE·1,25
FADP 580·PRINT·STRING$(80,"*");
EANO 590·WINDOW·#1,1,80,4,24
EALC 600·LOCATE·#1,x,y
EAOM 610·PRINT·#1,CHR$(143)
DAGC 620·i$=INKEY$
EALH 630·IF·i$=""·THEN·600
GAKG 640·IF·i$<CHR$(127)·THEN·690
EAAD 650·LOCATE·#1,x,y
DANE 660·PRINT·#1,"·"
DAFO 670·SOUND·4,1000,2
CAHL 680·GOTO·880
FAGP 690·IF·i$<CHR$(16)·THEN·600
KAON 700·IF·i$<>CHR$(13)·AND·store()32000·THE
        N·760
BAKJ 710·CLS
LAHP 720·PRINT·"Type·in·filename·to·SAVE·or"
LAAM 730·PRINT·"press·ENTER·to·continue·:-";
GALF 740·LINE·INPUT·"",sname$
CADL 750·GOTO·950
GAEA 760·IF·ASC(i$)>180·THEN·850
DAGL 770·SOUND·4,100,2
GANX 780·POKE·store,ASC(i$)-31
FADL 790·store=store+1
EANC 800·LOCATE·#1,x,y
DADH 810·PRINT·#1,i$
CADE 820·x=x+1
GACK 830·IF·x=81·THEN·x=1:y=y+1
HALL 840·IF·y=21·THEN·PRINT·#1:y=y-1
DAKF 850·LOCATE·71,1
FAKL 860·PRINT·32000-store
CAOK 870·GOTO·600
GAEF 880·IF·x=1·AND·y=1·THEN·600
CAME 890·x=x-1
GAAK 900·IF·x=0·THEN·x=80:y=y-1
FAFM 910·IF·y=0·THEN·y=1:x=1
EAEJ 920·POKE·store,1
FABL 930·store=store-1
CADL 940·GOTO·850
CADD 950·MODE·2
JAJI 960·FOR·loop=store·TO·store+22
EAGC 970·POKE·loop,1
DAXN 980·NEXT·loop
EADJ 990·POKE·loop,255
GALH 1000·IF·sname$=""·THEN·1020
JANJ 1010·SAVE·sname$,b,12000,store-11960
BAFM 1020·CLS
CAFH 1030·INK·2,1
BADP 1040·p=10
FAMP 1050·FOR·t=1·TO·640·STEP·4
NAIB 1060·PLOT·t,398,p:DRAWR·0,-150:MOVER·0,-
        100:DRAWR·0,-180
GALM 1070·p=p+1:IF·p=16·THEN·p=10
CAIC 1080·NEXT
EAPF 1090·p=10:CALL·10000
HAKK 1100·INK·p,1:CALL·&BD19:CALL·10006
IAON 1110·INK·p,0:p=p+1:IF·p=16·THEN·p=10
CAPP 1120·GOTO·1100
IAKL 1130·DATA·CD2027CD3B27CDBE27CD8D27,1398
IADI 1140·DATA·CD6D27C921F47E360011F57E,1399
IALG 1150·DATA·018007EDDB03E80326F9D21DF,1313
IACH 1160·DATA·2E226D9DC30C28DD21D08406,1193
IAAB 1170·DATA·0BC5DDE5213528115000020,927
IAFH 1180·DATA·06087EDD7700DD232310F7DD,1255
IAKF 1190·DATA·19DD20F0DDE11108000D19C1,1220
HAFP 1200·DATA·10DB21010022409CC91120C3,968
IANC 1210·DATA·2188900620C5D5015000EDB0,1255
IAND 1220·DATA·01EB7CC60867300401150C009,1211
IAPJ 1230·DATA·EBC110E9C921D084ED5B409C,1799
HAJO 1240·DATA·191188903E20015000EDB001,911
IAFA 1250·DATA·0800093D20F411F47E210893,929
HAGO 1260·DATA·0E1006501AFE002801772313,610
IAOG 1270·DATA·10F60D20F1C93A409C3DE607,1325
IAMD 1280·DATA·32409C21F57E11F47E010005,1067
IADJ 1290·DATA·EDB021437FDD212D280E08ED,1238
IAOI 1300·DATA·5B6B9D1A473A6F9DA0FE0028,1232
HANO 1310·DATA·03DD7E00D511500006027719,812
IAHI 1320·DATA·10FCD113DD230D20E23A6F9D,1349
IAFI 1330·DATA·1F326F9DFE00326F9D,1303
IAAK 1340·DATA·2A6D9D23226D9D7EFEFF2007,1317
IABE 1350·DATA·21E02E226D9D7E1108002IF4,1031
IALK 1360·DATA·9F471910FD226B9DC9F03CFC,1575
IAJF 1370·DATA·03FC3CF0F0CC883030303064,1427
HAGN 1380·DATA·CC0C200000000440C0C2030,420
HAHL 1390·DATA·303030640C0C20000000044,368
HAMK 1400·DATA·0C0C200000000440C302000,216
HAEI 1410·DATA·000000443000000044880000,320
HAPI 1420·DATA·00000000884400000080044,280
HANJ 1430·DATA·0000880004040088000044,348
HAMI 1440·DATA·080044000000000440C00000,216
HAMF 1450·DATA·0000800440008000000440,88
HAPJ 1460·DATA·888800004000008044000000,352
HAJE 1470·DATA·0804000000000004000000,16
HADB 1480·DATA·000008000000000008,8
HAJF 1490·DATA·0804000000200004000000,56
HAIE 1500·DATA·1010000800004002000400,80
HADE 1510·DATA·0000010000000800020,20
HACF 1520·DATA·000400200000100008080010,84
HAEE 1530·DATA·000400200000400000020100000,84
HAMK 1540·DATA·000000010200000000CC8800,388
HALL 1550·DATA·000000004CC0C200000000044,384
HAJM 1560·DATA·0C0C200000000440C0C2030,228
HAHL 1570·DATA·303030640C0C20000000044,368
HAOJ 1580·DATA·0C3020303030306430000000,432
```

Imagination

Each month, we get a lot of Type-Ins. We get a lot of really good software. However, we also get a lot of stuff that really isn't worth printing. Why? It's not because it's too long, too short, or badly programmed. The reason a lot of programs fail to get on these pages is a lack of imagination.

If you want to guarantee your program a place on the most coveted listings pages this side of Venus, theres one simple rule to stick to – make it original! We've had thousands of file copiers, maths programs, graph drawers, etc. Why not try adding a twist? Why not take an old idea and give it a bit of life? Also, try sending in modifications to old Type-Ins. If we get enough we might try starting a regular feature of updates for popular programs.

Finally, don't worry about listings being to short. If your program does the job and is still incredibly short, so much the better.
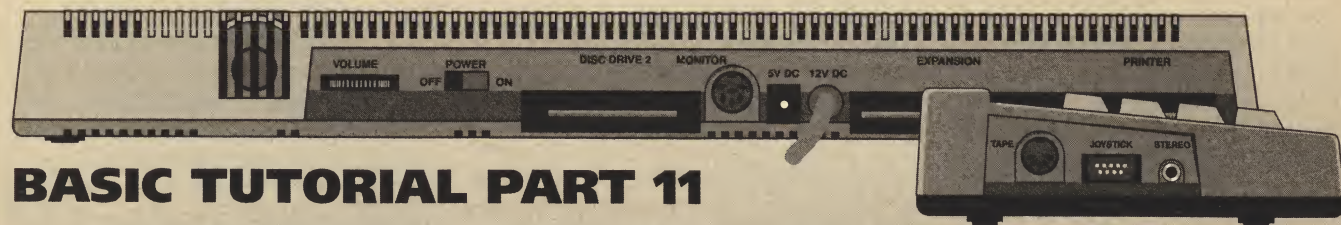
BASIC TUTORIAL PART 11

Last month we examined the password routine in detail and saw that, by combining BASIC constructs such as ON BREAK with simple string checking code we could work up an an – albeit minimal and rudimentary – form of password protection. Here it is for those who missed it:

```
5 REM This is a program to count the
characters in a string
10 VALID$="valid"
15 ON BREAK GOSUB 500
20 FOR CNT=1 to 5
30 etc
```

```
500 REM This code checks for a valid code
examination
510 CLS: LOCATE 15,7
520 PRINT "ACCESS ATTEMPT – ENTER
PASSWORD"
530 LOCATE 20,10
540 INPUT "Enter password:"; PASS$
550 IF PASS$="" THEN 540
560 IF ASC(PASS$)<>ASC(VALID$) THEN
CLS:LOCATE 15,15:PRINT "INVALID
PASSWORD": NEW
570 RETURN
```

Of course, the password routine in this program doesn't actually stop anyone from *running* the code – ie by checking that they're valid users, all it does is stop unscrupulous persons from examining what took you hours, days or even weeks of hard work to produce. In other words, it helps to keep out unwanted program crackers, by deleting the code if the 'cracker' doesn't know the password.

BASIC isn't terribly good at providing suitable tools for protection. The password routine given here would probably insult the intelligence of anyone even half familiar with breaking into programs, but it does, at least, serve to illustrate a point. And when you become more

conversant with BASIC and the machine in general, you can write more effective protection routines in both BASIC and machine code (the latter offering the only real solution to effective copy and cracking control) .

But what if you want to check user validity before allowing them to even *use* the program let alone examine its workings? Easy. Simply insert something like this new line 15:

```
5 REM This is a program to count the
characters in a string
10 VALID$="valid"
15 GOSUB 500
20 FOR CNT=1 to 5
30 A$=""
40 INPUT "Please type a string"; A$
50 etc
```

Now every time the program is run it will expect the user to hack in a valid password before allowing them to continue operation (and thereby do anything useful). This kind of checking is common on multi-user installations in offices and the like where even operating the computer is limited to the privileged few. If you want to check for valid operation *and* examination rights, use the ON BREAK GOSUB and the new line GOSUB 500, with slightly amended (separate) routines and two different passwords.

```
5 REM This is a program to count the
characters in a string
10 VALID$="valid": EXAM$="AUTHOR"
15 ON BREAK GOSUB 500
20 GOSUB 600
25 FOR CNT=1 to 5
30 A$=""
40 INPUT "Please type a string"; A$
50 etc
```

Here, two levels of password are in effect allowing operation of the program and containing unauthorised examination. You'll come across this kind of user-interrogation, known collectively as testing and branching, throughout your excursions into BASIC programming. It's a useful and does more than simply provide an answer to a computed equation. Look at the following

```
10 INPUT "Would you like to play a
game":A$
20 IF A$="yes" THEN 100
30 PRINT "OK, bye for now"
40 END
100 INPUT "Which level, (H)ard or (E)asy":A$
etc
```

When the program is run it interrogates the user as to whether they'd like to play a game or not. If the answer is in the negative, then operation simply falls through to line 30 – a simple goodbye type message, and the program ends. If however, the user wants to play, then operation is restarted from line 100 – the start of the program proper. Line 10 gets a user response, line 20 makes a decision based on that response.

You can also make use of ON GOTO and ON GOSUB when testing and branching by using it to enable the user to select from a range of options, and we'll look at that next month.

So, include plenty of interrogation in your programs – that way, you'll ensure the user is getting exactly what he or she wants from it, and always encode pieces of the program which will be used more than once as subroutines. Unique code can be included in the main part of your program, oft-used stuff as subroutines placed in order at the beginning or end. Try multi-layer protection with one of your programs, and have fun until next month.

Speaking of next month, there'll be some slight changes to Type-Ins. The main difference is that it'll be hosted by Simon Forrester, the newie here at AA. Also, the tutorial section will be very different. Instead of the usual topics, he'll be dissecting a reader program each month, and taking you through the workings and uses of BASIC that way. There comes a point where you can learn nothing more by reading tutorials, and you've just got to dive straight in, and so that's what we're going to help you to do. Also, from now on, we'd like to see more assembly (machine code) listings in the mag. We've had plenty of tutorials on the subject, so we won't be covering them in that sense, but there's no reason why you shouldn't send your assembly listings in.

Oh wow! It's a CPC464! We've got one of these in the office, you know!
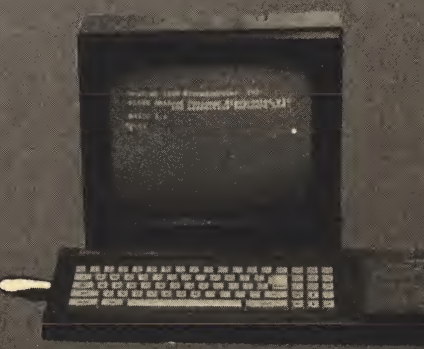
And here's a CPC6128. Very useful if you want to use this programming column.

Power Up

ACTION TEST pages 44-49 • ACTION REPLAY pages 56-57 • CHEAT MODE pages 51-54

Hurrah! It's finally arrived and it's absolutely beautiful. What are we talking about? Why, Nigel Mansell's World Championship, of course!

Reviewed this month

Simon Forrester

We all get the distinct feeling that Simon struck some kind of publicity deal with Nigel Mansell this month, what with his rave review. Why should we think such a strange thing? Well, maybe the new Porsche parked outside AA Towers has got something to do with it. (I wish! Si) Simon spook fact number 528: He's related to Lady Godiva! Yep, the one who rode through Coventry with no clothes on!

Linda Barker

Linda didn't review any games this month, instead she just subbed everybody elses stuff. (It's not true, I did The Popeye Collection! Ed.) She's also recently become the proud owner of an orange VW beetle. Stand aside Nigel Mansell, Barker's on the road. Linda spook fact number 834: She can actually stomach (and find) salmon and black pepper flavoured crisps! (I just thought I'd point out that I can't actually drive. Ed) Oh dear!

Jonathan Nash

John, as usual, didn't actually appear in print this month either, but he did a lot of behind-the-scenes work and other such vital what-would-we-do-without-you type stuff. We can't actually tell you what Jonathan's been doing, because a lot of it counts as delicate information! Jonathan spook fact number 395: He's world famous for his collection of Pinky and Perky memorabilia!

NIGEL MANSELL'S WORLD CHAMPIONSHIP 93%

KIDS PACK 2 ....88%
THE POPEYE COLLECTION..............60%
THE POSTMAN PAT HIT COLLECTION.....89%
CLASSIC ARCADIA 89%

The hit parade

1 NEW ZEALAND STORY Hit Squad

2 DIZZY DOWN THE RAPIDS CodeMasters
3 DIZZY PRINCE OF YOLKFOLK.....• C/MAsters
4 STREET FIGHTER ....• Kixx
5 BUBBLE DIZZY ....• C/Masters
6 FUN SCHOOL 2 OVER 8 ....• Hit Squad
7 FUN SCHOOL 2 6-8 ....• Hit Squad
8 LOTUS TURBO CHALLENGE ....• GBH
9 MINI OFFICE ....• Alternative
10 MAGICLAND DIZZY ....• C/Masters

11 FUN SCHOOL 2 U6 ....• Hit Squad
12 CRYSTAL KINGDOM DIZZY ....• C/MAsters
13 PIT FIGHTER ....• Hit Squad
14 GOLDEN AXE ....• Tronix
15 BUBBLE BOBBLE ....• Hit Squad
16 SPELLBOUND DIZZY ....• C/Masters
17 TRIVIAL PURSUIT ....• Hit Squad
18 SOCCER DOUBLE ....• E&J
19 SMASH TV ....• Hit Sqaud
20 TERMINATOR 2 ....• Hit Squad

Action this month RE-RELEASES

RBI2...90%
TERMINATOR 2 ....90%

School holidays? Off work? Ready to strangle the kids? Don't. Apart from being highly illegal, it's not very nice. SIMON FORRESTER thinks that buying them Kids Pack 2 from Alternative is a much better option!

KIDS PACK 2

Alternative Software ■ £9.99 cassette ■ 0977 797777

This little bundle contains six games - *Count Duckula 2, Fireman Sam, Popeye, Postman Pat 2, Huxley Pig* and *Bangers & Mash*. In case you hadn't noticed, some of these are reviewed elsewhere in this issue, so turn a few pages for those reviews, but as for the rest...

Count Duckula 2

No, don't laugh, it's really on here, and it's abysmal. It's a simple platform game with bland monochrome sprites, hideously slow and jerky movement, an ice-skating main figure (it kinda helps if the legs move roughly in time with Duckula's movement) and pathetic moving platforms that don't so much move as vanish and re-appear elsewhere. *Count Duckula 2* isn't a game, a game is fun. This is like sitting your A-levels again.

Count Duckula 2 is as bad as it looks.

Tea, eh? Just what the postman ordered.

Pigs love toast. It's a fact.

Fireman Sam

That's *Postman Pat!* No it's not. It's *Fireman Sam*. It may look pretty similar, but there are major differences. The fire engine is faster that Pat's van and there's lots of little subgames to have fun with too. These can vary from platform games to putting out fires, finding skateboards and getting kites off roofs.

Fireman Sam is a slightly more frantic version of *Postman Pat*, with loads more arm work and less time to doze.

The only drawback is the loading system. The main game loads all at once, but the bits which involve putting out fires, climbing up the sides of houses and the like, load separately. Still, the newfangled kids of today should be able to figure it out. That said, don't ever make the mistake of thinking this is just for kids. If a twenty year old reviewer can sit and get addicted to this stuff, it really does deserve to be taken seriously!

84%

Huxley Pig

The obvious reaction to this game would be 'Wow!' considering the excellent TV series, and the loading sequence does nothing to quench your enthusiasm. It loads. You press fire. You see the graphics. You move around the house. Scream. 'It's Craaaap!' Don't despair, things could be worse. They get worse.

The game is based more around a bloke avoiding spiders than Huxley, looking slightly over-done and moving like he's broken both his legs, interacting with his friends. Yet another opportunity for a fun licence has been wasted.

38%

Bangers & Mash

Oh no! It's the one with the theme tune by Chas 'n' Dave! Bangers & Mash, Bangers & Mash, Rabbit Rabbit Rabbit Wotcha Rabbit Rabbit Wotcha Bangers & Mash. Classic musicians. *(It took him two hours to work that out. Ed)*

Bangers (or is it Mash?) is a rather acrobatic, chimp who has to jump along the jungly platforms and collect fruit (for his mum's pies) and diamonds (for points). At the same time he's

got to stun, and escape from, the baddies.

The graphics are reminiscent of an enlarged *Rick Dangerous* and the sound is limited to appropriate spot effects and a nice meandering little tune whenever a ghost or witch is near.

Death, though inevitable, is especially irritating in *B & M*, as it comes in the most unexpected forms. A witch may fly up directly underneath you, and you'll die. Or maybe you'll jump and the screen will scroll upwards, you'll hit a previously unseen ghost, and you'll die. Failing that, you'll be standing on a platform, a poisonous plant will grow where you're standing, and you'll die. Persevere and you'll survive!

Bangers & Mash is definitely one of the better games on this compilation. It's fun to play, challenging, and teasing. Each time you play you do progress a little further, though expect to find toothmarks in your joystick! It can get very frustrating.

85%

By the way, *Postman Pat 2* is reviewed on page 48 and *Popeye* on page 45. Both games have been taken into consideration when awarding an overall mark.

Heaven knows why it was released the first time round, let alone put out again. In fact, it doesn't even deserve a ratings box. *(You can't do that, it's got to have a score. Ed)* Oh okay, how about zero? *(Come on. Ed)* Alright, it can have a crap 2%

2%

The Popeye Collection
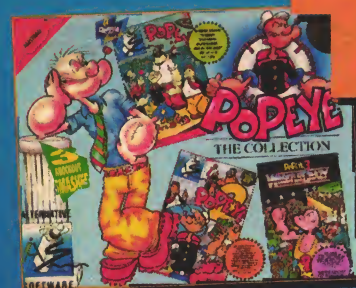
Alternative ■ 0977 797777 ■ £6.99 cassette

Blistering barnacles and shiver me timbers if it ain't Popeye! LINDA BARKER checks her sea legs and wades in...

Popeye is a perennial favourite, these Killer Tomatoes may come and go but the world's most famous sailorman lives on in these three games from Alternative. What a shame then, that they're not that good. Actually, that's a bit unfair cos *Popeye* is a bit of a laugh and *Popeye 2* does have its good bits. Anyway, lets take a look at them one by one, shall we?

Popeye

This is undoubtedly the best of the bunch – it's big, it's blocky and it's a bit beaut! The sprites are massive and dead colourful yet, despite their bulk, they manage to move with ease. You play the part of our Pops and you have to collect enough hearts to convince the fickle Olive that you really love her. If you don't... well, she might just run off with that brute Bluto.

Popeye is kind of 3D, its difficult to explain but you can take refuge in doorways and window alcoves. Y'see, even though they look exactly like the rest of the scenery, they are actually set back from the rest. As well as being very clever, this is also very useful and is therefore a very good thing. So whenever Bluto comes blundering towards you, or a vicious vulture vrooms straight for your jugular – find a doorway! Ah, talking of doorways, you need to collect keys too as these give you access to other areas of the game.

As for the baddies, they seem to have absolutely no connection with the game, or with each other - apart from the fact that they all knock you out. I mean, one minute you're fighting off a witch and the next a floating shark knocks you out! It's mad. It's also quite a laugh.
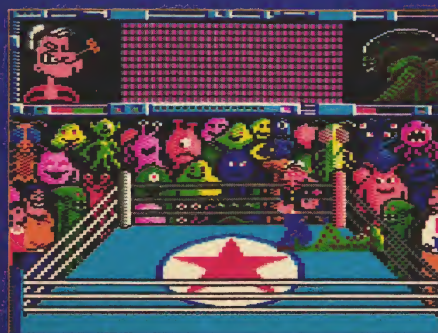
80%

What a smart Tonka toy!

I thought carrots made you yellow?
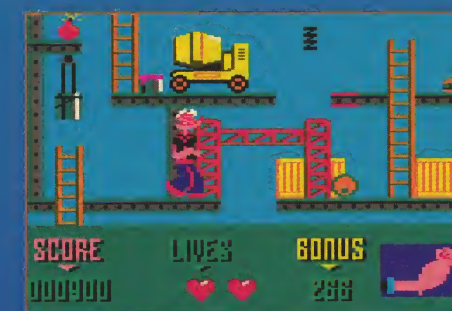
Popeye 2

Oh no, that silly sausage Olive has gone and fallen foul of Bluto's burly biceps! He's grabbed her and made a run for it and you've got to save your babe. Lucky ol' Olive, eh? *Popeye 2* is a platform game and it looks lovely. The characters, the platforms, the ladders and the various bits and bobs are all beautifully drawn. It really does look like it's going to be a complete treat to play.

But wouldn't you just know it – appearances are playing that old deceiving trick again. *Popeye 2* plays like a particularly spoilt child losing at Frustration – badly! The little Popeye sprite is wonderful until you actually try moving him. It's at this point that you begin to realise that this isn't going to be the pleasant experience that you were anticipating.

Popeye insists on falling down gaps rather than jumping over them and sometimes refuses to get off the ladders when you want him to. What's more, he has a marked fondness for death. Death comes in many guises but, whatever the means, Popeye always falls flat on his back with a rather large pot-belly stuck in the air. This confuses me. Popeye, standing upright, looks like rather a thin little chap – where does this belly come from? Oh well, pot-belly or no pot-belly – it's still not a very good game.

65%

Popeye 3

Popeye 3 isn't very good at all because the basic concept behind *Popeye 3* is crap. It really does seem as if Alternative thought they should get in on the wrestling thang, and quickly. So they came up with the idea of some alien fiends called KRAGGS kidnapping Popeye and forcing him to save the earth by, erm, wrestling. The gameplay was tied to this conceptual plot and it really shows. The main sprites are murky and undefined and the gameplay is simply dull. *Popeye 3* doesn't work as a wrestling game. You could have fun with it, but not for very long.

50%

You've been a swell crowd - I love you all!

He'll never fit in that little box!

Nigel Mansell's World Championship

Gremlin ■ **0742 753423** ■ **£15.99 disk**

The true British classics, eh? Monty Python, Carry On films, Gazza and now, says SIMON FORRESTER, Nigel Mansell (and his fairly natty set of wheels)...

Okay, so Gazza is a bit of an idiot, and Carry On films aren't exactly tasteful, but Monty Python and Nige make us all stand proud. We at AA towers awaited the CPC version of *Mansell* with baited breath, hoping that it would measure up to what we'd seen on other formats.

When you first run *Mansell*, you'll see a Gremlin logo, and think 'Hmm... that's pretty'. If this is the case, the odds are you'll probably spit your teeth out once the main game gets going. You're

greeted with some of the most beautiful graphics ever to grace the CPC. Forget demos – they're all the same anyway. Just spend a while playing *Mansell* to find out what your machine can really do with some decent software.
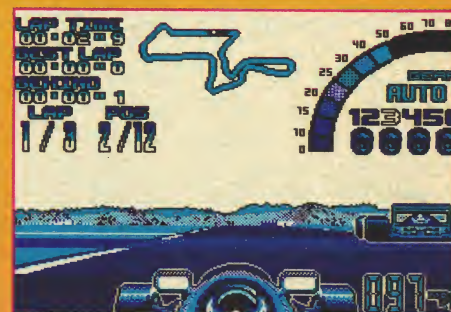
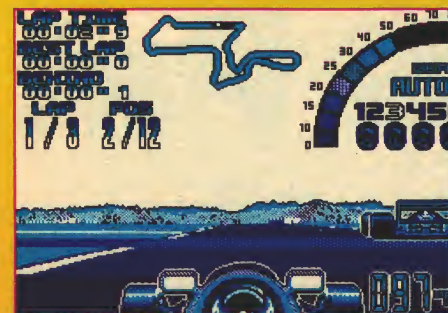What a logo! What a world! Have you ever seen anything so absolutely gorgeous?

It's a very blue kind if game is Nigel Mansell's World Championship.

We've all heard this kind of slobbering rant several times before, and we all know that beautiful sounds and graphics do not a stunning game make. So it's time to prise open the box and check under the hood, so to speak1

Nigel Mansell's World Championship is a, erm, racing game. Basically. *(We gathered that. Ed).* Okay, right – you, as Nigel Mansell, burn round as many courses as you can and get to be the world champion a lot. If this sounds a bit limiting, don't worry – it's not. You work your way round the world, with plenty of different tracks, varying weather conditions (which you must accommodate by modifying your car), and
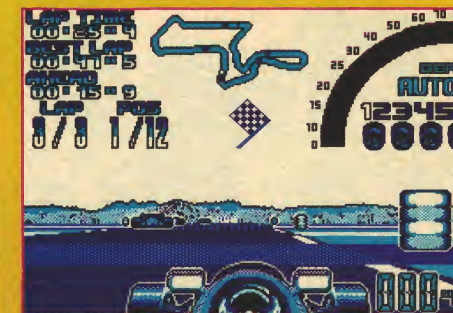
Some lovely huge graphics on the joystick - controlled main menu screen.

Possible Downers

DISK FLIPPING

So, you've loaded the game and you want to get burning. That's all very well, but with a game this size, it would have been impossible to fit it on to one side of a disk. This does have quite an unfortunate effect – you'll have to do a lot of side-swapping throughout the various sequences in the game. This isn't too much of a hindrance, but there seems to have been very little planning as to what section goes where. For example, you'll sometimes find yourself swapping to the other side just to display the leaderboard, and then swapping back again. It's hardly a major flaw, but it could mar your enjoyment slightly.

CASSETTES?

Now, for all you 464 owners who are slightly miffed at missing out on such a great game, you still have a chance. Gremlin aren't sure whether a cassette version will be released, but there's an outside chance. We must stress the word outside here, as the game wouldn't really lend itself to a huge multiloader. However, no doubt thousands of 464 owners will give Gremlin untold grief until they release a tape version that, due to the nature of the game, would be abysmal. You'd spend most of your time rewinding cassettes, screaming at tape loaders, and getting annoyed with tape counters. Sorry and everything!

It's like a busy shopping day in Bath city centre minus the gawping grannies.

I wonder who sponsored this license then? Was if Ford? How about Flat? Ferrari? Lotus? Honda? Or maybe Renault...

various opponents. In each race, you must first qualify to decide your position on the grid. The qualifying race usually consists of two to three laps. After that, you'll be entered in the 'real' race, where twelve of the best drivers in your field are waiting to destroy and humiliate you. After the race comes the award ceremony, complete with a podium (no champagne though), and a chance to view the leaderboard to see just where you are in the big scheme of things.

If you're not exactly God's gift to drivers, you have the option to go to driving school, which involves whizzing round the track a few times in order to get the hang of the game (a nice idea), and check out the competition.

It's weird. The only way to describe it is that it's as if someone really loved this game and spent all their time working on it until there was absolutely nothing more they could possibly add. When you want to modify your car to handle varying weather conditions, etc, there's this lovely sideways view of the car, and any alteration you select is played out via an animated sequence. At the beginning of the whole game, you are presented with a spinning globe, stopping at your current location. The options menu has some of the most scrumptious

A gorgeous animated sequence accompanies any changes you make to your car.

A nice open stretch and a chance to get some speed up, ready to fly off a corner!

icons you're ever likely to see, and all the menus throughout the game are joystick controlled and beautifully presented. *(By Jove, I think he rather likes it. Ed)*

Another thing you'll notice about *Mansell* is that it runs at incredible speeds. Granted, the screen update is slow, but this doesn't seem to impair the game play, as it seems to create the impression that your car's going really fast. I suppose that what I'm trying to say is that it isn't at all flickery in the conventional sense.

There are varying difficulty levels and the easier ones are quite unbelievably, erm, easy. Once you've been on one practise run, you'll be able to handle the car with no problems, and you'll probably find yourself well ahead of the other drivers whether you started in pole position or not. But don't for a minute you go thinking that this detracts from the gameplay, because it doesn't! We all know just how irritating it is to play a racing game, make a slight slip, and know that no matter what you do in the next few laps, you've lost and won't qualify for the main event. It makes a nice change to actually play a game where you stand at least a fighting chance of progressing. Still, even on the easier levels there are a few challenges. Overtaking, for example, is very difficult, as *Mansell* didn't seem to be at the front of the queue when they handed out track width. And of course, once you've got the hang of things, you can try out the harder levels.

So what separates this game from the average driving game, such as *Crazy Cars III* last month? Well, the emphasis in *CC3* is on money. That's all very well, but *Mansell* allows you to explore all the lovely things you can do to your car without worrying about cash. It also lets you advance around the world freely, as your progress depends on your skill rather than your

You can select various courses around the world with this spinning globe.

That flag at the top means you're on your last lap of the circuit.

I was wondering how I'd survive without my daily dose of Nige... Thank heavens for Gremlin Graphics!

luck at betting. Also, you're racing against a more logical opposition, as opposed to cars that just appear out of nowhere. When you overtake the pack, you don't have to dodge cars, just stay in the lead (unless you lap them – ahem).

Flashy bits aside, *Mansell* is a very enjoyable game. Of course, if you don't like racing games, then don't bother, but if you do then this is most definitely one of the best there is.

If, however, you're not into this kind of thing, don't worry, because neither was a certain staff writer before seeing probably the best racing game released to date.

The Postman Pat Hit Collection
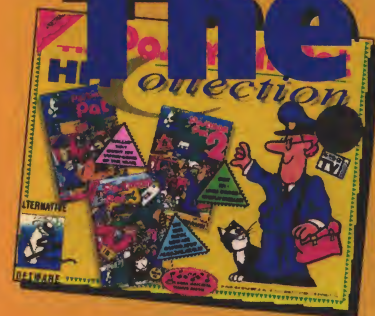
Alternative Software ■ **£6.99 cassette** ■ **(0977) 797777**

You've seen the film. You've read the book and heard the hit rave theme. Now play the games. That's what SIMON FORRESTER'S done!

First there was *Pat*. In *Pat 2*, the battle continues. *Pat 3* sees the final battle against rising postal costs with Pat sporting an Uzi and bandana. *(He lives in his own world, y'know. Ed)*

Postman Pat

PP sees you on a basic delivery run on a standard sunny day. No aliens, no bad guys, no ramps, jeeps or rocket launchers – just Pat, the cat, and the van. This game is blissfully puerile. The most you will ever have to worry about is getting Miss Hubbard's prescription to the chemist's, and drinking tea with the postmistress. When you're not leading this frantic social life, you're lazily driving around in this funky roadster of a Pat van. If you can't find your way to the doctor's house, don't worry – just keep driving round until you find it. Backwards if you want – nobody cares.

This game is absolutely perfect for its target age group. It doesn't have power-ups, continues, guns, or anything that anyone could possibly object to. It's just plain nice. The one mistake to

make would be to restrict this masterpiece to children. Everybody should try to live like this. (Like, wow man!)

If you don't fall in love with this game, something is quite obviously hideously wrong with you.

90%

Postman Pat 2

He's back, he's mean, and he's broken his van. That's why he's on foot, and that's why they haven't bothered with the colour red.

Pat 2 is a lot like *Pat 1*, but with a little less reliance on the cute factor. In fact, the emphasis seems to be on more lifelike characters, that aren't in the least bit cuddly.

Graphically, it's a Speccy port (or a very close conversion), and is distinctly unappealing. The addition of a radar to help you seems a little tacky, as do the moving counters representing other characters. Stylewise, it's a fast version of *Tir Na Nog*, with the added bonus of being able to tell which way you're facing.

Pat 2 turns a lazy drive round town into a boring trudge round the streets, and the colours give the impression that it's going to rain any minute.

84%

Postman Pat 3

Oh no! Delivery man Dan has broken his leg! Who will deliver all those phone directories? If you

have a problem, if no-one else can help, and if you can find him, maybe you could hire Pat.

Paperboy fans will love this one. It runs in overhead view, a view that sees Pat screaming down a road chucking phone books at houses. That's not all. There are roadworks and other cars to avoid, as well as the police who, however cuddly, probably have a distinctly unsavoury cell waiting for Pat.

You must deliver a set number of directories to specified houses within a certain time limit. It seems logical that the roads get progressively harder through the game, but this is not all that evident. All in all, it's a nice way to round off the collection.

51%

There's lots of nice locations in PP1.

More Speccy port action in PP2.

Not so much Paperboy as Paperpat!

Burning up the village in Pat 1.

Eek! It's the rozzers! We've been rumbled!

VERDICT

GRAPHICS
The emphasis here is definitely on cute, but what's wrong with that, eh?
83%

SONICS
There's only so much you can do with van noises, and these games don't exactly stretch the limits!
53%

GRAB FACTOR
Quite frankly, if this stuff doesn't appeal to you, there has to be something wrong!
88%

STAYING POWER
They will be played quite a bit, if not just to complete the various tasks throughout the game.
85%

Never before has the CPC seen such hideously cute releases. We love this stuff!

RATING 89%

ADVERTISERS INDEX

AVATAR	17
BOXFORM	49
C.A.V.E. ELECTRONICS	OBC
DATEL ELECTRONICS	IBC
G.V.L. MICROFORM	11
M.J.C. SUPPLIES	18
O.J. SOFTWARE	36
P.R. FREEDMAN	17
ROMANTIC ROBOT	11
SILICA SYSTEMS	27, 35
SIREN SOFTWARE	11
SOFTWARE CITY	41
TRADING POST	36
WIZARD GAMES	49
W.T.S. ELECTRONICS	49

Classic Arcadia Collection

Alternative Software ■ **£4.99 cassette** ■ **(0977) 797777**

Question: Do classic old arcade games that were a big hit in the old days need a re-release now? SIMON FORRESTER has a ponder.

Well, the answer to that very question depends both on the games and whether you were around when these games were the 'in thing'.

Classic Arcadia Collection consists of six of the earliest (and some believe the best) games ever seen: *Invaders*, *Axiens*, *Muncher*, *Missile*, *Crazy Er*bert* (I never did understand why the star was there. Is Er*bert a swear word, or something?), and *Grebit*. For all those who quietly snigger at games like this whilst loading up *Blasterzombiephaze*, just remember that these games were the predecessors to all the techojunk floating around.

So... The games. Graphically and sonically, these games won't astound you. On the plus side though is the fact that, that from a programmer's point of view, the whole selection is very tightly designed. For anyone who's never played any of these oldies, here they are one by one.

Invaders

This is the standard shoot-'em-up (I can't believe I'm explaining *Invaders*). Take away all the

Classic Invaders action - we love it!

What exactly, if anything, is a Pac?

phazers, smart bombs, thrusters, etc and you're left with something like the screenshot. The block of ships at the top move left and right, gradually getting lower, and your mission is to kill them. Basically.

Axiens

In the history of shoot-'em-ups, this came next. It involves the same old *Space Invaders* stuff (no doubt something to do with it being a straight conversion of *Galaxians*!), but with the invaders bombing down the screen with the intention of severely hurting you. There's enough extras here to make this a darn playable game.

Muncher

You've seen it on the covertape, you've played it to death. Now buy an official version and play that to death as well.

Muncher is nice as a *PacMan* clone but it doesn't really gel. Come to think of it, maybe the original didn't either...

Missile

This one involves an alien race attempting to blow you to smithereens. And, erm, that's it. If you're looking for fast fun and excitement then this game is definitely one to be avoided.

Crazy Er*Bert

This was known as 'The Game That No-One Could Control' and it's just as blimmin' difficult today. The easiest way to describe this game is as an isometric beat-'em-up on a mountain. *(You have to change the colour of the blocks by jumping up and down on them. Ed)*

It's too confusing, and it really isn't much fun. Another duff one, methinks.

Oh no! The invaders are fighting back!

Could you run those keys by me again?

Grebit

If you've ever played *Frogger*, then you'll understand *Grebit*. The idea is to guide your frogs across a busy road, and to the safety of a lily pad on the other side.

As a faithful representation of an all-time classic, this has to be worth a second look.

73%

Frogger is as *Frogger* does, it wasn't all that thrilling then and, well, you can work out the rest yourself.

67%

So, we've seen a bundle of old classics, some good, some bad. But whether a collection such as this is worthy of a re-release is debatable. In the end, it's got to be subjective. Remember though that this stuff started tit all.

67% (Axiens)
55% (Muncher)
30% (Missile)
47% (Crazy Er*Bert)

VERDICT

GRAPHICS
They're faithful to the originals but, still, they're not exactly impressive.
69%

SONICS
Don't expect miracles here either - the odd beep or rasp is all you'll get out of these.
63%

GRAB FACTOR
As with all the early stuff, their simplicity will definitely grab you. These were here first, remember!
86%

STAYING POWER
The fascination will wear off, but not before you've played some of them to death.
75%

A nice package giving faithful covers of the old classics. Worthwhile for posterity, and fun

RATING 80%

Cheat Mode

That Phil Howard, eh? What a chap and no mistake. Once you've worked your way through his cheats special (back on page 12) get going with this little lot. Does this man never rest? Save Phil a bit of work by sending in YOUR maps, cheats, tips and pokes to Cheat Mode, Amstrad Action, Beauford Court, 30 Monmouth Street, Bath, Avon BA1 2BW.

POKEs for CodeMasters compilations are this month's flavour to be savoured. Dug up from past issues and requested by lots (and lots) of people are the following tape cheats. Most of the *Quattro* cheats will work on the individual games if you have them.

The Quattro compilations...

Adventure, *Arcade*, *Cartoon*, *Combat*, *Firepower*, *Power*, *Racer*, and *Superhits*. Dunstable's Andy Price has, in his time, cheated on games almost too numerous to mention, here are some.

Quattro Adventure:

Dizzy – Lives
Vampire – Lives
Super Robin Hood – Invulnerability
Ghost Hunters – Start room/energy

Withstand the arrows of outrageous fortune with a few well-placed numbers!

```
HACF 1 ·'·Quattro·Adventure
EADF 2 ·'·by·ANDY·PRICE
AAMH 5·'
FAJC 10·DATA·2a,38,bd,22,2d
FAJI 20·DATA·be,ac,ad,21,37
FAED 30·DATA·bd,3e,c3,77,23
EAEN 40·DATA·3e,21,77,23,3e
EALM 50·DATA·be,77,21,40,00
EAOO 60·DATA·e3,11,00,bb,00
EAKP 70·DATA·c3,4a,3a,41,50
FAID 80·DATA·af,32,3a,95,3e
EAEH 90·DATA·04,32,25,89,00
FAKF 100·DATA·21,3d,be,22,4f
FAIL 110·DATA·bf,c3,00,bf,c3
FAAA 120·DATA·88,13,21,23,be
FAED 130·DATA·22,e3,39,3e,c3
EAOM 140·DATA·32,e2,39,21,40
FAAC 150·DATA·be,00,11,00,bb,e5
FANJ 160·DATA·eb,e5,c3,b7,39
FAJJ 170·DATA·dd,e5,dd,21,91
FAGG 180·DATA·01,3e,d0,dd,77
FAOG 190·DATA·00,3e,6f,dd,77
FACJ 200·DATA·01,3e,cd,dd,77
FANI 210·DATA·02,dd,e1,f1,f3
FAFD 220·DATA·c9,3e,34,32,5b
EAGP 230·DATA·2d,18,c5,00,00
EABP 240·DATA·06,05,11,00,ac
FAKG 250·DATA·21,28,be,cd,77
GAFC 260·DATA·bc,eb,cd,83,bc
FACM 270·DATA·23,e5,cd,7a,bc
FAAD 280·DATA·21,1b,be,22,92
FAMM 290·DATA·ac,c9,3e,ee,32
FABA 300·DATA·22,61,3e,c9,32
FAOD 310·DATA·97,6c,c3,d0,76
FAMA 320·DATA·52,4f,42,49,4e
EAPO 330·DATA·06,0d,11,00,c0
FAKG 340·DATA·21,28,be,cd,77
GAFC 350·DATA·bc,eb,cd,83,bc
FACM 360·DATA·23,e5,cd,7a,bc
FAAJ 370·DATA·21,1b,be,22,fe
FAPG 380·DATA·a4,c9,3e,c9,32
FAFD 390·DATA·cf,61,3e,02,32
FAAD 400·DATA·ca,61,c3,73,61
EABO 410·DATA·47,48,4f,53,54
FAOA 420·DATA·2d,48,55,4e,54
DABI 430·DATA·45,52,53
HAPA 440·RESTORE·10:start=&BE00
GAOP 450·finish=&BE20:GOSUB·770
FAHP 460·MODE·1:INK·1,15:INK·0,0
FAFC 470·PRINT"1.·Dizzy"
FABO 480·PRINT"2.·Vampire"
IANB 490·PRINT"3.·Ghost·Hunters"
IALN 500·PRINT"4.·Super·Robin·Hood"
IABC 510·PRINT:INPUT"Number)·",no
GAFP 520·ON·no·GOSUB·530,600,650,700
HAJB 530·RESTORE·80:start=&BE21
HAHA 540·finish=&BE29:GOSUB·770
JADK 550·CLS:PRINT"Inf·lives·active"
JANK 560·INPUT"Speed·of·Dizzy·(1..10)",s
HADE 570·POKE·&BE26,s:POKE·&BE2A,&CF
HAAE 580·POKE·&BE04,&2B:MEMORY·&2FFF
GAPN 590·LOAD"dizzy":CALL·&BE00
HAND 600·RESTORE·100:start=&BE00
HABA 610·finish=&BE43:GOSUB·770
JAOB 620·CLS:PRINT"Infinite·lives"
IAOG 630·MEMORY·&2FFF:LOAD"vampire"
DAGB 640·CALL·&BE0C
HAHE 650·RESTORE·330:start=&BE00
HAGA 660·finish=&BE34:GOSUB·770
JALO 670·CLS:PRINT"Invulnerability"
LAPC 680·PRINT:INPUT"Enter·start·room";r
GAPD 690·POKE·&BE21,r:CALL·&BE00
HADE 700·RESTORE·240:start=&BE00
HAAB 710·finish=&BE2C:GOSUB·770
MADI 720·CLS:PRINT"Invulnerability·active"
JAMK 730·PRINT:INPUT"Faster·Robin";y$
GAPP 740·IF·LEFT$(y$,1)="n"·THEN·760
DAII 750·POKE·&BE1C,0
DAGA 760·CALL·&BE00
HAFP 770·FOR·a=start·TO·finish
FAJK 780·READ·b$:b=VAL("&"+b$)
GABJ 790·POKE·a,b:NEXT:RETURN
```

Quattro Arcade:

Advanced Pinball – Balls
Fruit Machine – Credits
3D Starfighter – Invulnerability
Grand Prix Sim – Track

Endless cost-effective arcade fun!

```
KACJ 1·'·Quattro·Arcade·Cheat·System
EADF 2·'·by·ANDY·PRICE
AAKH 3·'
FAAE 10·FOR·x=&BE00·TO·&BE24
GALJ 20·READ·cd$:cd=VAL("&"+cd$)
EAGL 30·POKE·x,cd:NEXT
JAJK 40·MODE·1:PEN·2:PRINT"Choose·Game:"
IAOE 50·PEN·1:PRINT"1.·Pinball·Sim"
HABP 60·PRINT"2.·3D·Starfighter"
GAKN 70·PRINT"3.·Grand·Prix·2"
JADA 80·PRINT"4.·Friut·Machine·Sim"
HABI 90·PRINT:INPUT"Number:·",n
GABH 100·ON·n·GOSUB·120,140,160,200
CAHK 110·GOTO·390
FALP 120·RESTORE·330:GOSUB·220
CAEJ 130·RETURN
GABA 140·RESTORE·370:GOSUB·220
CACJ 150·RETURN
KANF 160·PRINT:PRINT"Grand·Prix·cheat:"
KAPI 170·PRINT:PRINT"Re-define·name·as";
HACJ 180·PEN·3:PRINT·"INTEGRA":PEN·1
```

```
BADP 190·RUN""
FAMP 200·RESTORE·350:GOSUB·220
CADJ 210·RETURN
FAII 220·FOR·x=&BE25·TO·&BE2B
GABP 230·READ·a$:POKE·x,VAL("&"+a$)
EAPA 240·NEXT:RETURN
FAMA 250·DATA·ED,5B,38,BD,E5
FADA 260·DATA·AC,E1,ED,53,2D
FABA 270·DATA·BE,AD,11,37,BD
EABN 280·DATA·3E,C3,12,13,3E
EACN 290·DATA·25,12,3E,BE,13
EAPJ 300·DATA·12,21,40,00,E3
EAKL 310·DATA·11,00,BB,00,C3
EACL 320·DATA·4A,3A,41,50,00
EAAO 330·DATA·AF,32,15,04,EE
EAGI 340·DATA·41,00,00,00,00
EALP 350·DATA·AF,32,3F,73,EE
EAII 360·DATA·50,00,00,00,00
EAGO 370·DATA·AF,32,3A,7F,32
EAIK 380·DATA·15,7F,00,00,00
EAIA 390·POKE·&BE2C,&CF
FAFH 400·MEMORY·&2FFF:LOAD""
CAOP 410·CALL·&BE00
```

Quattro Cartoon:

Frankenstein Jnr – No ghosts
Wizard Willy – Lives
Olli and Lissa 3 – No ghosts
Little Puff – Invulnerability

```
GAOH 1·'·Quattro·Cartoon
EADF 2·'·by·ANDY·PRICE
AAKH 3·'
HAGI 4·'·Frank·Jnr·No·Ghosts
NABB 5·'·Wizard·Willy:·Inf·lives·&·Firepower
LAHF 6·'·Little·Puff:·Invulnerability
IABM 7·'············and·move·location
IAFK 8·'·Ollie·&·Lissa:·No·Ghosts
AAAI 9·'
FANI 10·DATA·2a,38,bd,e5,ac
FAEI 20·DATA·e1,22,2c,be,aa
FALF 30·DATA·ab,21,37,bd,3e
EAEN 40·DATA·c3,77,23,3e,23
FAPA 50·DATA·77,3e,be,23,77
EABJ 60·DATA·21,40,00,e3,11
FAEF 70·DATA·00,bb,c3,4a,3a
FAGG 80·DATA·af,32,05,5d,ee
FAAD 90·DATA·41,ee,50,cf,00
FAEF 100·DATA·af,32,1c,1c,32
FABF 110·DATA·4c,1d,00,cf,00
EAPN 120·DATA·00,00,0a,00,0a
FABG 130·DATA·21,de,7f,22,4b
EAEN 140·DATA·80,21,18,8e,22
EAPJ 150·DATA·70,80,18,22,21
FABJ 160·DATA·ec,7f,11,00,fc
FAPE 170·DATA·01,0a,00,ed,b0
FAOM 180·DATA·c3,4d,fc,3e,c9
EAFN 190·DATA·32,60,63,01,8d
EABN 200·DATA·7f,18,69,00,00
FADI 210·FOR·x=&BE2F·TO·&BE2E
FALJ 220·READ·a$:a=VAL("&"+a$)
GACD 230·POKE·x,a:NEXT:MODE·1
FAHE 240·MEMORY·&2FFF:PEN·1
HAPA 250·PRINT"1,·Little·Puff"
HAEJ 260·PRINT"2,·Wizard·Willy"
JAGC 270·PRINT"3,·Frankenstein·Jnr"
IAIE 280·PRINT"4,·Ollie·&·Lissa·III"
HAIH 290·PRINT:INPUT"Option";n
GALD 300·ON·n·GOTO·320,390,430,440
```

```
FAIK 310·RESTORE:CLEAR:RUN
JAHD 320·CLS:PRINT"Keypress·Cheat:"
KABA 330·PRINT:PRINT"Press·Keys:";:PEN·2
NACH 340·PRINT"D·R·A·G·O·N";:PEN·1:PRINT"·all
     ·together"
MAGF 350·PEN·1:PRINT"Gives·Invulnerability"
LAPP 360·PRINT"Also,·Press·SHIFT·Plus·Arrow"
KAKB 370·PRINT"Keys·To·Move·Location"
BAEP 380·RUN""
DABJ 390·RESTORE·100
FAJI 400·FOR·x=&BE23·TO·&BE2E
GABP 410·READ·a$:POKE·x,VAL("&"+a$)
HAAH 420·NEXT:LOAD"wiz":CALL·&BE00
IAKB 430·LOAD"frank·jnr":CALL·&BE00
DAAJ 440·RESTORE·130
FANI 450·FOR·x=&7FD0·TO·&7FF5
GAGP 460·READ·a$:POKE·x,VAL("&"+a$)
IAHB 470·NEXT:LOAD"candlelight"
DAPA 480·CALL·&7FD0
```

Quattro Combat:

Arcade Flight – Lives
Death Stalker – No ghosts
SAS Combat Sim – Lives

```
KAIK 1·'Quattro·Combat·Cheat·System
EADF 2·'·by·ANDY·PRICE
JAIA 3·'·*·use·Typewriter·codes·*
AALH 4·'
FAND 10·FOR·x=&BE00·TO·&BE21
FAGJ 20·READ·p$:p=VAL("&"+p$)
EAPF 30·POKE·x,p:NEXT
IAKD 40·MODE·1:PRINT"Choose·Game:"
HABL 50·PRINT"1,·Death·Stalker"
HANH 60·PRINT"2,·SAS·Combat·Sim"
IAAO 70·PRINT"3,·Arcade·Flight·Sim"
HAAI 80·PRINT:INPUT"Number:·",n
FAII 90·ON·n·GOSUB·100,180,200
FAOI 91·RESTORE·440:GOTO·500
FAOP 100·RESTORE·400:GOSUB·290
IAPH 110·INPUT"Ground·ghouls";y$
GAMP 120·IF·LEFT$(y$,1)="y"·THEN·160
JAHC 130·INPUT"Fireball·demons";y$
GAPP 140·IF·LEFT$(y$,1)="y"·THEN·170
CAGJ 150·RETURN
GAIA 160·POKE·&BE24,&3C:GOTO·130
GABA 170·POKE·&BE29,&3C:RETURN
GANA 180·RESTORE·380:GOSUB·290
CAKJ 190·RETURN
GABA 200·RESTORE·420:GOSUB·290
JADF 210·CLS:PRINT"Infinite·lives:"
GAAC 240·INPUT"Player·1";y$
HAFA 245·IF·LEFT$(y$,1)="y"·THEN·260
DACO 250·POKE·&BE24,&3D
GADC 260·INPUT"Player·2";y$
HAJA 265·IF·LEFT$(y$,1)="y"·THEN·280
DAJO 270·POKE·&BE29,&3D
CAKJ 280·RETURN
FAAJ 290·FOR·x=&BE23·TO·&BE2E
HANA 300·READ·p$:POKE·x,VAL("&"+p$)
EANA 310·NEXT:RETURN
FAHB 320·DATA·ED,5B,38,BD,EB
FAAH 330·DATA·22,34,BE,11,37,BD
FANI 340·DATA·E8,3E,C3,77,23,3E
FADH 350·DATA·23,77,3E,BE,23,77
FAAD 360·DATA·21,40,00,E3,11,00
FANH 370·DATA·BB,00,C3,4A,3A,91
FAAL 380·DATA·AF,32,AA,49,3E,FF
FAOE 390·DATA·32,86,32,32,8B,32
```

```
FALF 400·DATA·3E,00,32,1C,17,3E
FAPD 410·DATA·00,32,BD,18,00,00
FALG 420·DATA·3E,00,32,8A,89,3E
FAMD 430·DATA·00,32,4E,89,00,00
FABE 440·DATA·00,41,50,00,CF,00
FANI 500·FOR·x=&BE2F·TO·&BE34
HAAB 510·READ·p$:POKE·x,VAL("&"+p$)
GAAL 520·NEXT:MEMORY·&3000:LOAD""
DABA 530·CALL·&BE00
```
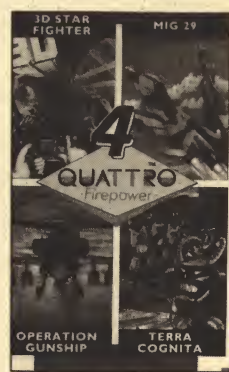
Quattro Firepower:

Mig 29 Fighter –
Lives
Operation Gunship
– Invulnerability
3D Starfighter –
Invulnerability

Zap 'em out of the skies and remain invincible!

```
HALF 1·'·Quattro·Firepower
EADF 2·'·by·ANDY·PRICE
AAKH 3·'
KAFM 10·MODE·1:PRINT"Quattro·Firepower"
HAJL 20·PRINT·TAB(13)"by·ANDY·PRICE"
KAOB 30·PRINT"1,·Mig·29·Soviet·fighter"
JAEI 40·PRINT"2,·Operation·Gunship"
HABP 50·PRINT"3,·3D·Starfighter"
HAPJ 60·PRINT:INPUT"Number";jp
FACL 70·ON·jp·GOTO·340,100,560
CACE 80·GOTO·10
AAAL 90·'
HAHK 100·'·Operation·Gunship
HAML 110·'·Quattro·Firepower
AAKN 120·'
EAFL 130·'·by·ANDY·PRICE
AAMN 140·'
DABJ 150·RESTORE·160
GAFI 160·DATA·2a,38,bd,e5,ac,e1
FADP 170·DATA·22,35,be,ad,21,37
GAOC 180·DATA·bd,3e,c3,77,23,3e
FAFN 190·DATA·23,77,3e,be,23,77
FAJE 200·DATA·21,40,00,e3,11,00
GADH 210·DATA·bb,00,c3,4a,3a,af
GADA 220·DATA·32,9b,8e,32,5f,8d
FAJJ 230·DATA·32,53,8d,32,b1,85
FAPO 240·DATA·3e,41,3e,50,cf,00
FANA 250·DATA·00,00,00,00,00,00
FAKH 260·FOR·x=&BE00·TO·&BE36
FAAK 270·READ·a$:a=VAL("&"+a$)
HAGP 280·POKE·x,a:chk=chk+a:NEXT
GAED 290·IF·chk<>&1546·THEN·320
FAEH 300·MEMORY·&2FFF:LOAD""
CANP 310·CALL·&BE00
IAGN 320·PRINT"Error·in·poke":STOP
AANN 330·'
IAJC 340·'·Mig·29·Soviet·Fighter
HACM 350·'·Quattro·Firepower
AAAO 360·'
EALL 370·'·by·ANDY·PRICE
AACO 380·'
DAEJ 390·RESTORE·400
GACI 400·DATA·2a,38,bd,e5,ac,e1
GAMB 410·DATA·22,2b,be,ad,21,37
GALC 420·DATA·bd,3e,c3,77,23,3e
FACN 430·DATA·23,77,3e,be,23,77
```

```
FAPE 440·DATA·21,40,00,e3,11,00
GAJH 450·DATA·bb,00,c3,4a,3a,af
FAHM 460·DATA·32,c8,08,32,f1,0c
FAKH 470·DATA·cf,00,00,00,00,00
FAKI 480·FOR·x=&BE00·TO·&BE2C
FAEK 490·READ·a$:a=VAL("&"+a$)
HABP 500·POKE·x,a:chk=chk+a:NEXT
GAPD 510·IF·chk<>&116D·THEN·540
FAIH 520·MEMORY·&2FFF:LOAD""
DABA 530·CALL·&BE00
IAKN 540·PRINT"Error·in·poke":STOP
AABO 550·'
GAMB 560·'·3D·Star·Fighter
HACM 570·'·Quattro·Firepower
AAEO 580·'
EAPL 590·'·by·ANDY·PRICE
AANN 600·'
DAGJ 610·RESTORE·650
FAOB 620·FOR·x=&BE00·TO·&BE2B
GACN 630·READ·cd$:cd=VAL("&"+cd$)
EANO 640·POKE·x,cd:NEXT
FAAB 650·DATA·ED,5B,38,BD,E5
FAHA 660·DATA·AC,E1,ED,53,2D
FAFA 670·DATA·BE,AD,11,37,BD
EAFN 680·DATA·3E,C3,12,13,3E
EAGN 690·DATA·25,12,3E,BE,13
EADK 700·DATA·12,21,40,00,E3
EAOL 710·DATA·11,00,BB,00,C3
EAGL 720·DATA·4A,3A,41,50,00
EAGO 730·DATA·AF,3A,3A,7F,32
EAIK 740·DATA·15,7F,00,00,00
EAIA 750·POKE·&BE2C,&CF
FAOH 760·MEMORY·&2FFF:LOAD""
DAHA 770·CALL·&BE00
```

Quattro Power:

Motorcross Sim –
Bikes
Twin Turbo V8 –
Time/lives
Pro Powerboat –
Lives
ATV Sim – Time

Stay ahead simply by tapping in this list.

```
FAFL 1·'·Quattro·Power
EADF 2·'·by·ANDY·PRICE
AAMH 5·'
FAOL 10·MODE·1:INK·1,15:INK·0,0
HAEO 20·PRINT"1,·Moto·Cross·Sim"
HAAF 30·PRINT"2,·Twin·Turbo·V8"
JADC 40·PRINT"3,·Pro·Powerboat·Sim"
HADK 50·PRINT"4,·ATV·Simulator"
HABP 60·PRINT:INPUT"Number>,·",no
GAIF 70·ON·no·GOTO·880,660,320,90
CACE 80·GOTO·10
HAAM 90·'·ATV·Simulator·cheat
EACL 100·'·by·ANDY·PRICE
KAPF 110·'·Function:·stops·the·clock
DALI 120·RESTORE·130
EADJ 130·DATA·21,70,01,11,35
EALN 140·DATA·04,3E,16,CD,A1
EAGP 150·DATA·BA,2A,0E,BC,22
EACP 160·DATA·B5,3E,C3,32
FAFA 170·DATA·0E,21,9F,BE
EABP 180·DATA·22,0F,BC,CD,80
```

```
EAMO 190·DATA·01,E5,21,AB,BE
EALO 200·DATA·22,8E,98,E1,CD
FAIB 210·DATA·B4,BE,C9,F5,AF
EANN 220·DATA·32,1E,4C,F1,C3
EAMK 230·DATA·00,04,CF,00,00
FAMN 240·FOR·ad=&BE80·TO·&BEB6
FADO 250·READ·x$:x=VAL("&"+x$)
GAHP 260·POKE·ad,x:z=z+x:NEXT
FANE 270·IF·z<>&1800·THEN·300
HANJ 280·MODE·0:PRINT"Press·PLAY"
DAMA 290·CALL·&BE00
HAIG 300·PRINT"DATA·error":STOP
AALN 310·'
HAAH 320·'·Pro·Powerboat·Sim'
EAHL 330·'·by·ANDY·PRICE
FAKJ 340·'·tape·method·1
AAPN 350·'
DAHJ 360·RESTORE·370
FAOB 370·DATA·ED,5B,38,BD,ED
FAIA 380·DATA·53,3D,BE,AD,3E
FADA 390·DATA·59,A4,CB,77,AF
EAPN 400·DATA·21,37,BD,3E,C3
EACM 410·DATA·77,23,3E,28,77
EAFN 420·DATA·23,77,3E,BE,23,77,21
EAPJ 430·DATA·40,00,E3,11,00
EAFO 440·DATA·BB,00,C3,4A,3A
EAOM 450·DATA·3E,09,32,2C,88
EAIL 460·DATA·3E,12,32,31,88
EAAN 470·DATA·3E,08,32,3C,88
EAAM 480·DATA·3E,17,32,41,88
DAIJ 490·DATA·CF,00,00
FADN 500·FOR·ad=&BE00·TO·&BE3E
FANJ 510·READ·a$:a=VAL("&"+a$)
GAGM 520·y=y+a:POKE·ad,a:NEXT
FANG 530·IF·y<>&168E·THEN·640
FAJD 540·MEMORY·&3000:LOAD""
HAEI 550·INPUT"lives·for·p1";p
DAJL 560·POKE·&BE33,p
HAHI 570·INPUT"lives·for·p2";p
DAAM 580·POKE·&BE29,p
HACI 590·INPUT"mines·for·p2";p
DAFM 600·POKE·&BE2E,p
HAKH 610·INPUT"mines·for·p1";p
DALL 620·POKE·&BE37,p
DACA 630·CALL·&BE00
IAGE 640·PRINT"Error·in·DATA":STOP
AACO 650·'
FAPH 660·'·Twin·Turbo·V8
EAOL 670·'·by·ANDY·PRICE
AAFO 680·'
DAKJ 690·RESTORE·700
FADA 700·DATA·2A,38,BD,E5,AC
EAMO 710·DATA·E1,22,31,BE,AD
EAEO 720·DATA·21,37,BD,3E,C3
EACM 730·DATA·77,23,3E,23,77
EAKN 740·DATA·3E,BE,23,77,21
EAEK 750·DATA·40,00,E3,11,00
EAKO 760·DATA·BB,00,C3,4A,3A
EAMN 770·DATA·AF,32,50,65,3E
FAHA 780·DATA·99,32,EE,1B,EE
EALF 790·DATA·41,EE,50,CF
FAID 800·MEMORY·&3000:LOAD""
FAGH 810·FOR·y=&BE00·TO·&BE30
FAOM 820·READ·p$:p=VAL("&"+p$)
GAKJ 830·POKE·x=x+p:POKE·y,p:NEXT
FAOG 840·IF·x<>&14A8·THEN·860
DAGA 850·CALL·&BE00
HADH 860·PRINT"DATA·error":STOP
AAGO 870·'
```

```
IAAL 880·'·Moto·Cross·Simulator
EACM 890·'·by·ANDY·PRICE
AAAO 900·'
DAJJ 910·RESTORE·920
FAHA 920·DATA·2A,38,BD,E5,AC
FAEA 930·DATA·E1,22,2F,BE,AD
EAIO 940·DATA·21,37,BD,3E,C3
EAGM 950·DATA·77,23,3E,23,77
EAON 960·DATA·3E,BE,23,77,21
EAIK 970·DATA·40,00,E3,11,00
EAOO 980·DATA·BB,00,C3,4A,3A
EAMN 990·DATA·AF,32,C7,05,32
EADN 1000·DATA·2B,0D,00,00,00
DABD 1010·DATA·00,CF
FADG 1020·MEMORY·&3000:LOAD""
FAFL 1030·FOR·y=&BE00·TO·&BE2E
FAJP 1040·READ·p$:p=VAL("&"+p$)
HALG 1050·ch=ch+p:POKE·y,p:NEXT
GADB 1060·IF·ch<>&10A8·THEN·1080
DABD 1070·CALL·&BE00
HAFB 1080·PRINT"error·in·DATA"
```

Quattro Racer:

BMX Freestyle –
Qualify
BMX Sim 2 – Time
ATV Sim – Time
Championship Jet Ski – Course

Race to the front and stay there whilst others look on in awe!
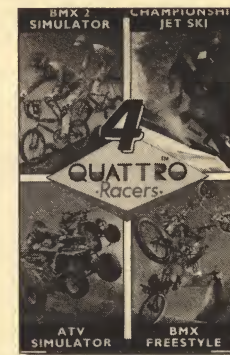
```
GAIA 1·'·Quattro·Racers
EADF 2·'·by·ANDY·PRICE
AAKH 3·'
HAOC 4·'·ATV·Sim·--·stop·clock
GAPL 5·'·BMX·2·--·clock·speed
NAGC 6·'·BMX·Freestyle·--·nefarious·oddities!
KAAL 7·'·Champ·Jet·Ski·--·choose·course
AAPH 8·'
EAPI 10·DATA·21,30,6c,11,30
FAFC 20·DATA·ac,01,91,01,ed
EAKP 30·DATA·b0,21,94,be,22
FALI 40·DATA·6f,ac,c3,30,ac
EALM 50·DATA·3e,01,32,43,5b
FAAA 60·DATA·c3,40,00,4f,6f
FAJG 70·DATA·4f,4f,b8,a8,a0
FAEJ 80·DATA·2a,38,bd,e5,ac
FABJ 90·DATA·e1,22,2f,be,ad
FAMF 100·DATA·21,37,bd,3e,c3
EAKN 110·DATA·77,23,3e,23,77
FACD 120·DATA·3e,be,23,77,21
EAML 130·DATA·40,00,e3,11,00
FACI 140·DATA·bb,00,c3,4a,3a
FAAA 150·DATA·3e,c3,32,10,66
EAFP 160·DATA·21,31,be,22,11
FAPC 170·DATA·66,cf,00,00,3e
FAKA 180·DATA·02,32,f9,65,c3
FAIN 190·DATA·13,66,ff,ff,ff
EABJ 200·DATA·21,70,01,11,35
EAJN 210·DATA·04,3E,16,CD,A1
EAEP 220·DATA·BC,2A,0E,BC,22
EAAP 230·DATA·B5,BE,3E,C3,32
FADA 240·DATA·0E,BC,21,9F,BE
EAPO 250·DATA·22,0F,BC,CD,80
EAKO 260·DATA·01,E5,21,AB,BE
```

```
EACP 270·DATA·22,8E,98,E1,CD
FAPB 280·DATA·B4,BE,C9,F5,AF
EAEO 290·DATA·32,1E,4C,F1,C3
EAKK 300·DATA·00,04,CF,00,00
DALN 305·MEMORY·&2FFF
JAFK 310·MODE·1:PRINT"Quattro·Racers"
HAMO 320·PRINT·TAB(13)"by·ANDY·PRICE"
HABN 330·PRINT"1.·ATV·Simulator"
IABC 340·PRINT"2.·BMX·Simulator·2"
HAEM 350·PRINT"3.·BMX·Freesytle"
KAJH 360·PRINT"4.·Championship·Jet·Ski"
HADN 370·PRINT:INPUT"Number";jp
GAFL 380·ON·jp·GOTO·490,400,530,580
CAJK 390·GOTO·310
DAJF 400·RESTORE·10
FABJ 410·FOR·x=&BE80·TO·&BE9B
GACP 420·READ·a$:POKE·x,VAL("&"+a$)
FALN 430·NEXT:LOAD"BMX2",&6C30
JACP 440·Clock·Speed·(1·is·fast)
IABG 450·PRINT·TAB(13)"(5·is·normal)"
IAFA 460·PRINT·TAB(13)"(255·is·slow)"
JAHJ 470·INPUT"Enter·Speed·Value:",v
GADF 480·POKE·&BE95,v:CALL·&BE80
DADJ 490·RESTORE·200
FAOI 500·FOR·x=&BE80·TO·&BEB6
GACP 510·READ·a$:POKE·x,VAL("&"+a$)
EABI 520·NEXT:CALL·&BE80
LAFJ 530·MODE·1:PRINT"Keypress·Cheat:":PRINT
KAIL 540·PRINT"Redefine·each·players";
HABE 550·PRINT·"name·as:":PRINT
LAEC 560·PEN·2:PRINT"TAEHC·('CHEAT'·reversed
      )"
BAFP 570·RUN""
DAJG 580·RESTORE·80
FACI 590·FOR·x=&BE00·TO·&BE38
GACP 600·READ·a$:POKE·x,VAL("&"+a$)
GAOB 610·NEXT:LOAD"jetski"
JACF 620·INPUT"Start·Course·(0-8)";tr
GAPK 630·POKE·&BE32,tr:CALL·&BE00
```

Quattro Superhits:

Super Tank Sim – Lives
Super Hero – Lives
Italian Supercar – Time

Gain superhuman qualities with this simply super routine!

```
HAPG 1·'·Quattro·Super·Hits
EADF 2·'·by·ANDY·PRICE
AAKH 3·'
FANE 10·FOR·x=&BE00·TO·&BE2A
GALJ 20·READ·cd$:POKE·x,VAL("&"+cd$)
EAGL 30·POKE·x,cd:NEXT
JAJK 40·MODE:1:PEN·2:PRINT"Choose·Game:"
JAMM 50·PEN·1:PRINT"1.·Super·Stuntman"
GAEJ 60·PRINT"2.·Super·Tank"
GAGJ 70·PRINT"3.·Super·Hero"
JACA 80·PRINT"4.·Italian·Super·Car"
HABI 90·PRINT:INPUT"Number:·",n
GABH 100·ON·n·GOSUB·160,120,140,200
CAHK 110·GOTO·390
FAOP 120·RESTORE·360:GOSUB·220
CAEJ 130·RETURN
GACA 140·RESTORE·380:GOSUB·220
```

```
CAGJ 150·RETURN
KACB 160·PRINT:PRINT"Super·Stuntman:"
KAOI 170·PRINT:PRINT"Type·LIVEWIRE·into";
IAOK 180·PRINT"·high·score·table"
BADP 190·RUN""
FALP 200·RESTORE·340:GOSUB·220
CADJ 210·RETURN
FAFI 220·FOR·x=&BE2B·TO·&BE31
GABP 230·READ·a$:POKE·x,VAL("&"+a$)
EAPA 240·NEXT:RETURN
FAMA 250·DATA·ED,5B,38,BD,E5
EAGP 260·DATA·A5,ED,53,33,BE
EACP 270·DATA·E1,AC,DD,21,37
FAOA 280·DATA·BD,3E,C3,DD,77
EAHO 290·DATA·00,3E,2B,DD,77
EADP 300·DATA·01,3E,BE,DD,77
EAPJ 310·DATA·02,21,40,00,E3
EAIM 320·DATA·11,00,BB,37,3F
EAPL 330·DATA·C3,4A,3A,00,00
EAFN 340·DATA·AF,32,C8,17,32
EAGK 350·DATA·91,4F,00,00,00
EAKN 360·DATA·AF,32,F6,37,32
EAKK 370·DATA·2B,99,00,00,00
EAJM 380·DATA·AF,32,63,37,32
EALK 385·DATA·6A,37,00,00,00
DAIP 390·POKE·&BE32,&CF
FAED 400·MEMORY·&3000:LOAD""
CAOP 410·CALL·&BE00
```

Graham Smith of Street has bashed together cheats for *The Dizzy Compilation* and *The Cartoon Collection*, get stuck into them too.

Cartoon Collection:

Seymour goes to Hollywood – Lives
Spike in Transylvania – Lives
Slightly Magic – Lives
Dizzy (again) – Lives
Little Puff – Invulnerability

```
NAKI 1·'·Cartoon·collection·by·Graham·Smith
HDKK 10·DATA·06,00,11,11,11,cd,77,bc,d5,eb,cd
     ,83,bc,e5,cd,7a,bc,01,10,00,11,00,be,21,
     c2,90,ed,b0,e1,d1,7a,fe,3a,20,28,7d,fe,4
     3,c0,2a,38,bd,22,0a,be,21,37,bd,36,c3,23
     ,36,00,23,36,be,11,00,bb,21,40,00,e3,c3,
     4a,3a,21,38,90,22,22,3b,c3,e9,3a,d5,01
GDLE 20·DATA·71,00,11,1e,02,21,5b,90,ed,b0,d1
     ,c3,1e,02,7a,b7,20,10,21,2a,02,22,7f,00,
     eb,e9,cd,9f,00,af,32,91,16,c9,fe,03,20,1
     0,21,3e,02,23,3e,03,eb,e9,cd,98,03,af,32
     ,f1,40,c9,fe,8a,c2,00,00,21,59,02,22,56,
     8b,21,00,00,22,60,8b,eb,e9,cd,52,fe,01
CCKN 30·DATA·1d,00,11,00,00,21,68,02,ed,b0,c9
     ,cd,52,fe,af,32,b8,61,21,c8,61,36,7e,23,
     36,b7,23,36,c2,23,36,82,23,36,61,23,77,2
     3,77,c9,af,32,3a,95,3e,c9,32,18,95,cf
CCKL 40·DEFSTR·a-e:FOR·j=&9000·TO·&90CB:READ
     a:POKE·j,VAL("&"+a$):NEXT:a=STRING$(22,4
     2):b="*"+STRING$(20,32)+"*":c=STRING$(15
     ,42):d="*"+STRING$(13,32)+"*"
FBNC 50·e="-Infinite·lives·":GOSUB·80:PRINT"
     †Seymour·goes·to·Hollywood
IAPA 60·†Spike·in·Transylvania
```

```
FABF Slightly·Magic
CAKB Dizzy
EAPB Little·Puff
JAIL (↓";e;e;e;e;"Invulnerability
JANE ↓(";a;b;b;b;a;"CARTOON·COLLECTI
     ON
GAOG <·Insert·game·tape
BADP †(····"
GAMP 60·CALL·&9000:GOSUB·80:PRINT
BADP †(····"
KENC ··During·the·game·press·keys·D·R·A·G·O·N
     ·at·the·same·time·for·invulnerability····
     ·from·most·things···This·also·lets·you·
     change·location·by·holding·down·shift···
     ·and·pressing·an·arrow·key····If·you·do·
     get·killed·then";
DBLB 70·PRINT"re-enter·the·cheat·after";"rest
     arting·the·game.
HAEE ·";c;d;d;d;c;"LITTLE·PUFF
MAGI †(<·Press·any·key>·····
     ":CALL·&BB18:CALL·&9042
MAFC 80·PRINT"†AMS
     TRAD·ACTION·CHEAT·MODE":RETURN
```

The Dizzy Collection:

Dizzy (yet again) – Lives
Treasure Island Dizzy – Immunity
Fantasy World Dizzy – Lives
Magicland Dizzy – Lives
Fast Food – Lives

```
MAKK 1·'·Dizzy·Collection.·By·Graham·Smith.
MAGA 2·'·Also·for·original·games,·except
GAKJ 3·'·(perhaps)·Dizzy·4.
JALH 4·'·Dizzy,·Dizzy·3,·Dizzy·4·and
KAGA 5·'·Fast·Food···infinite·lives.
MAKH 6·'·Dizzy·2···immunity·from·drowning,
LAPP 7·'·flames,·cages·and·sea·creatures
IAJI 8·'·Save·to·tape,·not·disc.
AAAI 9·'
IACP 10·DATA·11,00,01,43,cd,77,bc,d5,eb,cd
JAFJ 20·DATA·83,bc,cd,7a,bc,e1,7c,fe,3a,28
IAND 30·DATA·4e,fe,af,28,25,01,17,00,11,85
IANM 40·DATA·8a,21,27,be,ed,b0,c3,91,8a,21
HAHP 50·DATA·00,c3,22,4b,3e,11,00,40,c3,71
IAJB 60·DATA·be,21,19,8b,36,c3,23,36,85,23
IAAK 70·DATA·36,8a,21,47,be,22,c0,af,c3,80
IAPM 80·DATA·af,21,0a,8b,7e,fe,20,3e,18,20
HAOO 90·DATA·06,77,32,92,8a,18,06,32,1c,8b
IAEF 100·DATA·32,a4,8a,32,2e,01,c3,40,00,2a
JAEA 110·DATA·38,bd,22,9e,be,21,37,bd,36,c3
IABG 120·DATA·23,36,7e,23,36,be,11,00,bb,21
IADJ 130·DATA·40,00,e3,c3,4a,3a,21,0c,57,7e
IAKD 140·DATA·ee,3d,20,03,77,18,14,21,63,a0
IAKK 150·DATA·7e,ee,3d,20,03,77,18,09,af,32
HAAG 160·DATA·3a,95,3e,c9,32,18,95,cf
HANF 170·FOR·j=48640·TO·48797:READ·a$
JAIN 180·x=VAL("&"+a$):y=y+x:POKE·j,x:NEXT
GACN 190·IF·y=15354·THEN·CALL·48640
GAFE 200·PRINT"data·error
```

AIR ATTACK

Alternative Software ■ Tel 0977 797777 ■ £4.99 cassette

Up there, flying through the clouds, soaring with the birds, sweeping like an eagle, diving like a heron (getting blown to bits like a clay pigeon), playing in the fluffy pink clouds, and back in time for tea – life in the Air Force is good, handsome, brave, dashing... or is it. SIMON FORRESTER thinks not.

That's dross. Your lifespan was ten minutes in a Spitfire, and probably not much longer in a Harrier. You were cold, scared, and exhausted and filled with the cold dread of sudden, unheroic death. So especially for you, Alternative have allowed us all to relive the experience with their flight sim compilation pack containing *Spitfire 40* and *Strike Force Harrier* – two of the biggest selling sims on the CPC. But are these games any good? In reality, it all depends what lights your candle. Personally, my candle positively melts when I think of hanging upside down 30,000 feet up in the air!

Spitfire 40

This game must have been a nightmare to program, seeing as not only have you got to write a flight sim, but a faithful conversion from reality. Whether they've achieved this is, quite frankly, anybody's guess (when was the last time you went up in a Spitfire then?).

The game is simple; fly over England blasting as many bells as possible out of your opponents. That's it. Your opponents, like everything else in this game, are essentially vector graphics, but the speed at which this game runs excuses that – if those straight lines were all filled in with colour and stuff like that, the game would be too slow to be playable.

On loading, you have the choice of practice mode (no evil villainous bad guys), combat mode (the real thing, chocks away etc), and finally combat practice (this sees you already in the air being attacked by a stream of Red Baron style blokies). This makes *Spitfire 40* more than just a mediocre fly-and-shoot-'em-up.

The graphics in *Spitfire 40* aren't exactly beautiful, with not much on the ground, the horizon, or indeed, the air. Life isn't all dull though, as getting used to the controls and learning to fly a plane that has great difficulty maintaining height will keep you too occupied to worry about the lack of ground detail. Sonically, this game is just a tad annoying. The problem with any simulator is that programmers always seem to feel compelled to simulate a whining engine with a really heavy flange.

When you're flying, certain things are bound to confuse you at first. The scariest problem you'll have is suddenly tipping forwards and flying towards the ground. Aaaaaaueargh!

Spitfire 40 isn't the smoothest or flashiest game in the world, but it's fun.

82%

Strike Force Harrier

Time to dispense with all the 'Tally Hos!' and such like, and move to more modern quotes such as, 'I'll see you in hell, Jack!' as we move almost bang up to date with *Strike Force Harrier*, and if you though reviewing *Spitfire 40* was difficult enough, you ought to try taking an authoritative stance this one! However, I suppose I'd better do my job *(When? Ed)* and appear the all-seeing, all-knowing reviewer.

The quality of the simulation is still open to question, but what about the quality of the game? The first problem you'll encounter is the fact that there don't seem to be any instructions. You're not even told how to speed up, let alone climb! Always assuming you don't want to use them, there are a lot of features on the Harrier. There's loads of weapons (what is a chaff anyway?) and

some nice fun to be had shooting the hell out of people.

Graphically, *Harrier* is a little better than *Spitfire 40*, with stuff on the ground, mountains, etc. Sonically, it's pretty much the same.

Once you get the knack of playing this game, you'll enjoy it. However, if you don't like flight sims as a rule, what are you doing with this game anyway?

78%

Life on the ocean waves, la da da ... Oh sorry, wrong game.

Die, you planey-type flying thing that's probably British. Oh dear.

Chocks away, and I supose I'd better start the plane up (it usually helps).

Oooh, it's a bit of Blighty! Some of it's a bit brown, but it's what we call home.

Oh I see, these are the controls are they? So how do I fly this thing?

VERDICT

GRAPHICS
They're both good looking and nice to play, but *Harrier* seems ever so slightly better.
77%

SONICS
There's not much you can do with a flight sim. As far as flanging motor effects go, they're okay.
74%

GRAB FACTOR
How grabby can a flight sim be? There's little room for originality in the format.
84%

STAYING POWER
If you like flying around a lot, this pack has certainly got the goodies to keep you happy.
88%

Flight sims are a funny bunch. You either love them or hate them. If you love them, these are for you!

RATING 80%

There may only be two games in this month's Action Replay, but they're two jolly good ones. So good in fact, that we've put one on each page!

Action ►► replay

RBI 2 Baseball

The Hit Squad ■ 061 832 6633 ■ £3.99

That incredibly sporty jock (ahem) SIMON FORRESTER picks up his bat and steps on to the diamond...

Oh scriddly dee. La tum te tum. What? A baseball game? What's baseball? Oh, you mean rounders? So what's the difference? A diamond? Where does that come into it?

(Ooh Lordy Simon, you are so thick. Baseball differs from rounders in that baseball is played on a diamond shaped pitch, and only has four

bases (including the batting base). All the standard rules of rounders are still applicable as, basically, baseball is just an American variation of rounders, or rounders is just an English version of baseball.

In RBI2 most of the game involves shots of the diamond, the field, and the bowlers mound. The animated sequences are absolutely beautiful, with the ball arcing right up to almost obscure your view of the diamond.

The game is quite a good simulation. You have the option to select the starting players in your team and, with none of the messing around involved with positioning people, you can dive headfirst into the main game. Fielding can be a tad slow, with the blokies crawling through the grass, but the batters don't move all that fast either anyway.

Gra... (Graphically, there's very little you can do with a game like this. Ed) Oi! (If you've ever played a cricket game, you'll know it's just like an isometric version of Lemmings. Ed) Help! I'm being obscured by Ed comments! (The fielders are slightly easier to control in RBI2, though you might have some trouble getting to grips with it first time around. Ed)

As the fielder ran towards the ball, the audience held their collective breath.
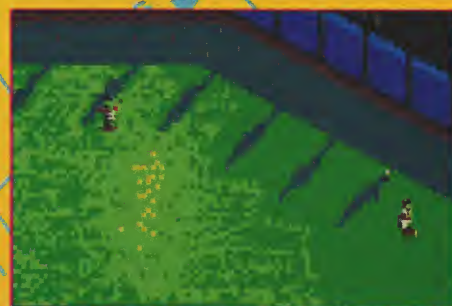
Daylight turned to dusk and the players' thoughts turned to their tea.

Can I do the sound, Linda? (The sound is all right and quite unobtrusive, it won't detract from the game though it won't add much either.

All in all, RBI2 gels together quite well. It's nice to be able to select your team, and it doesn't get too tedious as there isn't much tactical talk. It's always a plus point to have some animated sequences to look at instead of lots of boring boxes with numbers in. Ed)

Erm, Linda, (What? Ed) I was quite looking forward to reviewing this game. (But it's quite clear to everyone that you know very little, if anything, about the intricacies of the game of baseball. Ed) But I could learn...

RBI - What does it mean?

● Righteous Baseball Interaction
● Rather Blimmin' Important
● Really Blue Ink
● Rancid Banana Incense
● Render Badgers Insensible
● Respect Bad Instructions
● Romantic Bohemian Inventor

This is what the whole screen looks like. It's pretty spiffy, isn't it?

How do you play it?

The players come in two teams. This guy (the pitcher) stands on this hill and throws a ball at a bloke (batter) holding a big stick that's fat at one end, and thin at the other. The blokey hits the ball with the stick, and then runs around the diamond.

Whilst he's hitting the ball, some of his friends are running round the diamond already. They have to run when he runs, and when they get all the way arond, they score a point. If, however, one of the small army of men standing miles away on the field (did we mention them?) manages to get the ball back to a point on the diamond whilst a blokey is

running towards it, said blokey goes home and cries a lot. If, however, the people on the field catches the ball, then the batter is out straight away, and everybody starts shouting and hugging each other.

Now... If the batter is so crap that he can't hit any of three balls that are thrown at him (not all at once, obviously), he's also out straight away, as these balls are all caught by a bloke standing behind him who's dressed like the Michelin Man.

And those are the rules, chaps. Happy hitting! Last one home smells like a very old baseball mitt!

Right, this is either Walton or Ballard. One's a nice boy and one's a sci-fi freak.

VERDICT 90%

Terminator 2

The Hit Squad ■ 061 832 6633 ■ £3.99

"I'm a cold heart breaker, fit to burn, and I'll rip your heart in two... " SIMON FORRESTER straps on his metal arm and grabs a piece of the action.

So it's the game of the film of the book, eh? Quite frankly, the thought of meeting that Axl Rose (Who? Not terribly with it AA reader)... out of Guns 'n' Roses (Oh yes, Guns and Roses. Jolly nice chaps, lovely ear for melody. Even less with it AA reader) in a dark alley is slightly more horrific than meeting Arnie (especially if Axl started singing Ed). Still that's by the by and, after a pointless effort to let you know how scared I am of Axl Rose, we'd better take a look at the game.

Level One – The shopping mall – Enter Arnie stage right, and the strange liquid bloke stage left. If you play this game anything like I do, it'll run as follows: Arnie kicks the other bloke. Bloke turns his hand into a spike and stabs Arnie. Arnie tries to punch him. Arnie misses. Bloke head-butts (or rather blob-butts) Arnie. Arnie kicks. Arnie kicks. Arnie kicks. Arnie kicks. Bloke melts. Bloke reforms himself. Arnie keeps kicking. Bloke eventually dies after doing various liquidy things. (Why do I get the feeling that everyone's going to write in, having followed this paragraph to the letter and then lost? Ed)

Level Two – The flood channel – Enter Arnie on a cool Harley, with John Connor draped over the back (Makes a change from a scantily clad, erm, lady. Ed), being pursued by the same rather scary liquid bloke in a pretty hefty truck. The idea

here is to outrun the truck, whilst not smashing into tyres, sofas (well they look like sofas) and the other stuff that litters the highway. If you do, both Arnie and John lose even more energy. There are also puddles to skid about in and drink cans that, for some reason, seem to cause immense hassle. (I think they're meant to be petrol cans actually. Ed)

Later on, you get some smart puzzle bits to work out. In Level Three you have to operate on the Terminator's arm. It's one of those rearrange-the-blocks puzzles and it's fiendishly difficult. Still, everything's made a bit easier by the friendly controls. If you're kicking yourself with frustration it won't be because of the joystick. A couple of levels later, you have to do the same thing with old Termy's head. The levels kind of repeat themselves, so you get a couple of other racey levels and a couple of fighty ones. They may be quite similar ideas, but they get progressively more difficult. One thing's for sure, this is a blimmin' hard game.
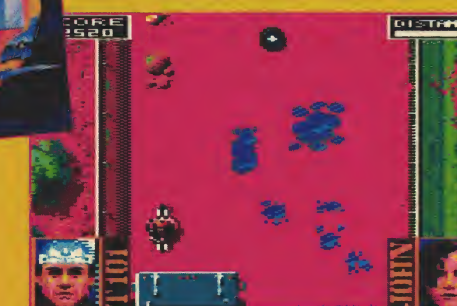
Like Arnie (okay, I admit it, I can't spell his last

Diss ist me bevor de surgery. I am now much more handsome, ja?

Dis ist mein vater's vater - mein grandvater. He voss ein gut man.

Your Amelkanische roads are sehr dirty. In Deutschland, alles ist clean und, how you say, neece. Ja, ist all neece.

name), this game is immensely and well 'ard. You've seen those games where you complete them in a matter of seconds? Well, this is definitely not one of them. You will progress further every time you play, but you won't complete this on your second go. You'll definitely keep on trying and there are certain skills that you'll slowly get the gist of, and some that'll take a little longer to master. Indeed, there are a wide range of skills needed, not least puzzling out just how to fit all those blocks into Arnie's unfished fizzog. This isn't just a fighting game, a racing game nor a puzzle game. It is in fact a combination of all the elements that have created classic games in the past. Whether this was a deliberate strategy on the part of the programmers, or whether the plot of the film simply lent itself rather easily to this format isn't clear. Whichever way round though, you'll have a lot to do.

So how does it measure up? Well, as an action game, it's got it all, or most of it at least. And it's even got those lovely puzzley bits. It's nicely presented, with some good graphics, and incidental loading screens. It's definitely worth a review, which is a good job really!

Allo! ich bin das Terminator und I vould like to know vas mein hed ist doing over there?

Ich bin das Terminator und du ist ein blob von metal. Du cannst nicht me beat.

Ha! das Terminator (das ist me, ja?) ist vonce again die best. Oh, ich bin so gut!

VERDICT 90%

Next Month

Coming to a newsagent near you!
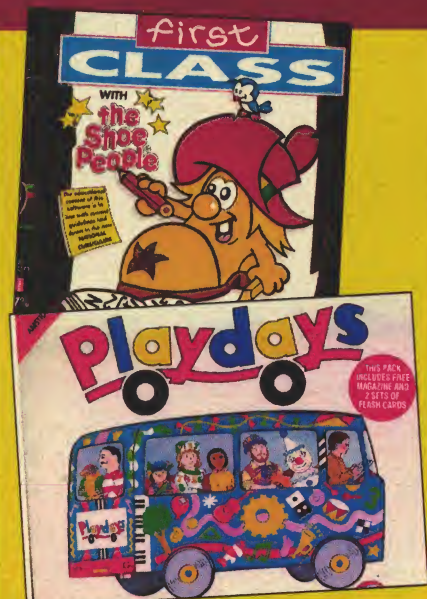
Rod used to live in a bus like that!

More Kids...

The *Fun School* collection, *The Shoe People*
and *Playdays* crocodile march on to the
CPC (and in to your child's mind).
Get some education!

More Upgrades

The next instalment of Phil Craven's series
on boosting your CPC Plus to the skies.
Next month 6218 Plus owners can find out
how to operate that remote!
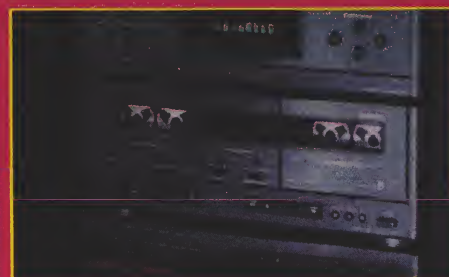
Erm, we ran out of pictures of upgrades!

Street Fighter 2

We live in eternal hope, and promise we'll
review it next issue. It was delayed this
month. We all cried bitterly, but that's the
way it is. However, abandon not ye faith! We
shall cometh in the future, with fist and foot,
to bring you this long-awaited beat-'em-up.

Fighter 2 - an
's impression.
good artist!

Machine Code (again)

Simon Forrester takes you on a ramble
around the innards of your CPC.

April issue on sale March 25th

MAG*SAVE

I want Amstrad Action!

Dear Newsagent, could you please order me a copy of *Amstrad Action*, starting with the April issue, out
on March 25th. *Amstrad Action* is published by Future Publishing, and you can order it from your whole-
saler. Thanks.

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